

THE DEVELOPMENT OF CHILDREN'S UNDERSTANDING OF SOCIAL  
ANXIETY IN OTHERS

BY

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## TABLE OF CONTENTS

|  | PAGE |
|--|------|
| ACKNOWLEDGMENTS . . . . .  | ii   |
| ABSTRACT . . . . .   | v    |
| CHAPTER  |      |
| I. INTRODUCTION . . . . .  | 1    |
| The Self, Self-presentation, and Social Anxiety                        | 3    |
| Symbolic interactionism and the "self" in<br>social behavior . . . . . | 3    |
| Self-presentation and social anxiety . . . . .                         | 9    |
| Behaviors and Social Anxiety . . . . .                                 | 27   |
| Situations and Social Anxiety . . . . .                                | 29   |
| Summary . . . . .  | 32   |
| Social-cognitive Development . . . . .                                 | 33   |
| Introduction . . . . .   | 33   |
| Social-cognitive abilities . . . . .                                   | 35   |
| Children and self-presentation . . . . .                               | 60   |
| Anxiety and children . . . . .   | 68   |
| Overview and hypotheses . . . . .                                      | 73   |
| II. METHOD . . . . .   | 77   |
| Subjects . . . . .   | 77   |
| Procedure . . . . .  | 78   |
| III. RESULTS . . . . .   | 86   |
| Manipulation Checks . . . . .  | 87   |
| Motivation Manipulation . . . . .                                      | 87   |
| Ability Manipulation . . . . .   | 90   |
| Analysis of Questionnaire . . . . .                                    | 91   |
| Measures of Anxiety . . . . .  | 91   |
| Worry . . . . .  | 91   |
| Uneasiness . . . . .   | 95   |
| Nervousness . . . . .  | 96   |
| Confidence . . . . .   | 100  |
| Behavioral Measures . . . . .  | 105  |
| Evaluation of Actors . . . . .   | 113  |
| Shyness . . . . .  | 113  |

|   |            |
|---|------------|
| Liking . . . . .  | 114        |
| Good/Bad, Happy/Sad, Strong/Weak . . . . .                          | 115        |
| Subjects' self-ratings . . . . .                                    | 118        |
| Relationships Among Measures . . . . .                              | 119        |
| <b>IV. DISCUSSION . . . . .</b>                                     | <b>122</b> |
| Overview . . . . .  | 122        |
| Actors' Motivation and Ability . . . . .                            | 125        |
| Contingent versus Noncontingent Interactions .                      | 132        |
| The Effects of Grade . . . . .                                      | 134        |
| Measures of Affect and Behavior and their<br>Relationship . . . . . | 138        |
| Summary . . . . .   | 140        |
| <b>APPENDIX</b>   |            |
| <b>A. PROTOCOLS AND VIGNETTES . . . . .</b>                         | <b>143</b> |
| <b>B. NUMBER OF SUBJECTS PER CELL OF THE DESIGN . . . . .</b>       | <b>150</b> |
| <b>C. NUMBER OF SUBJECTS PER CELL ANSWERING THAT ACTORS</b>         | <b>151</b> |
| <b>REFERENCES . . . . .</b>   | <b>152</b> |
| <b>BIOGRAPHICAL SKETCH . . . . .</b>                                | <b>164</b> |

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THE DEVELOPMENT OF CHILDREN'S UNDERSTANDING OF SOCIAL  
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A model of social anxiety was used to assess the development of children's understanding of social anxiety in others. The model proposes that actors who are highly motivated to impress another but doubt their chances for successfully doing so experience the aversive state of social anxiety. Theories and research on social cognitive development were used to hypothesize that older rather than younger children would more readily recognize the effects of these antecedent conditions. Also, it was predicted that older children more than younger children would demonstrate a more thorough understanding of the affective and behavioral components of social anxiety.

A study was conducted in which second, fourth, and seventh grade children were presented stories depicting actors in two situations: making a friend or acting in a play. Within each situation the actor was portrayed as either highly motivated or less motivated to impress an audience and either with high or low expectations of success. Subjects rated actors in these conditions as to how anxious the actors felt, what kinds of behaviors the actors may perform, and on general evaluative dimensions. Consistent support was found for the model in showing highly motivated and less able actors rated as being very socially anxious. Also, results supported the general hypothesis that older children judged actors in social anxiety settings in ways consistent with the model. Support was qualified, however, by a number of findings suggesting overall pessimism of older children, regardless of the actor's particular condition. Evidence was obtained which indicated older children's more sophisticated understanding of the possible divergence in self-presentation situations between what one feels and how one behaves.

## CHAPTER I INTRODUCTION

This research was designed to assess the nature and development of children's understanding of social anxiety in others. Being anxious or nervous in the presence of others is something everyone has experienced. The ways people present themselves in social interaction affect their outcomes in these settings: everyone wants to obtain a desirable reaction from subjectively important audiences. People who find themselves wanting to obtain a certain audience evaluation but fear they might not succeed experience the discomfort of social anxiety. This research looks at how second, fourth, and seventh grade children evaluated people portrayed in social anxiety situations. How, for example, do younger versus older children differ in their understanding of a story character's motivation to obtain a desired reaction from an audience and how the character's motivation affects his or her feelings and behavior? How do children of different ages understand the ways people present themselves in social settings?

In order to answer these and other questions, theory and research on social anxiety as a self-presentational concern are used as a backdrop for assessing children's

understanding of the phenomenon. There is very little existing research on how children recognize self-presentational concerns in others, and the use of the self-presentation approach here will provide a clearer understanding of how this recognition develops. In addition to the social psychological perspective of the self-presentation approach, theories and research on social-cognitive development are used to articulate the progression of children's understanding of social behavior, particularly, the development of children's knowledge of the position of the self in social interaction.

Social anxiety is defined as "anxiety resulting from the prospect or presence of personal evaluation in real or imagined social situations" (Schlenker & Leary, 1982, p. 642). As such, the study of social anxiety is a useful tool for investigating children's understanding of the relation between the public and private worlds of the self, because it represents one possible response to coming into contact with pressures from the social environment. Children's knowledge of social scenarios that evoke concerns over self-referent behavior in interactions is presumed to develop throughout childhood, concurrently with other social-cognitive skills, such as role-taking, making social inferences, solving interpersonal problems, and becoming aware of the social nature of the self. It was expected that younger children (second graders) would make less

articulate and consistent judgments than older children (fourth and seventh graders) about the variables affecting social anxiety in story characters who are shown either with or without concerns about the impressions they make on others.

In the first of the following sections, social behavior is discussed from the theoretical perspectives of symbolic interactionism, social learning theory, script theory, and self-presentation. Particular prominence is given to the relationship between the self and the social environment from these perspectives. In addition, specific definitions and propositions of the self-presentation approach to the study of social anxiety are covered, followed by a discussion of relevant theories and research on social-cognitive development. Finally, an overview is presented including the specific hypotheses to be tested.

#### The Self, Self-presentation, and Social Anxiety Symbolic interactionism and the "self" in social behavior

There are many approaches to studying social behavior. It can be viewed, for example, as (1) the result of a resolution of conflicts between inner wishes and outer realities (Sulloway, 1979), (2) the result of operant conditioning whereby humans respond to social cues with behavior that has been successful in the past (Skinner, 1976), (3) the result of human evolution (Freedman, 1979;

Hogan, in press; Wilson, 1975), (4) the result of self-reflection, expectation of outcome, and self-regulation based on past reinforcement contingencies (Bandura, 1977), or (5) the result of one's knowledge about various social situations and the invocation of social scripts or meaning to guide social behavior (Abelson, 1976; Langer, 1978; Meltzer, Petras, & Reynolds, 1975). There is probably no possible or, at the very least, easy way to determine which of these perspectives on social behavior is the most comprehensive and valid; all seem useful up to a point. However, because the focus of the current research is on the position and influence of the self in social interaction, the last two perspectives become particularly relevant.

Social learning theory (for example, Bandura, 1977) embraces the processes of both operant conditioning and introspection or self-reflection as determinants of social behavior. The individual is neither driven solely by one process nor the other, but rather a "continuous reciprocal interaction of personal and environmental determinants" occurs to influence behavior, "including symbolic, vicarious, and self-regulatory processes" (Bandura, 1977, pp. 11-12). The self is, in this perspective, an evaluator of experience and a regulator of behavior, whose goal is to achieve self-efficacy and valued outcomes in social behavior. Self-efficacy, according to Bandura, is the expectation that one can successfully perform behaviors

leading to valued outcomes (p. 79). In this sense, Bandura's conception of self is akin to James' (1890/1950) notion of the self as primarily seeking positive self-evaluations, evaluations arising from successful social behaviors. This notion of self is also similar to Hogan's conceptualizations of the self as striving for positive self-regard through successfully achieving status and popularity (Hogan, in press).

From the perspective of Bandura's theory, the self is an active builder of perceptions and evaluations of its own experience. The consequences of past performance not only affect the likelihood of future performance, but provide the individual with information about the relationship between certain behaviors and their consequences. Because one can reflect on the reinforcement contingencies of past experiences, one can regulate one's environment and behavior so as to try to achieve valued and avoid nonvalued outcomes in the future. By implication, one can in some cases seek to regulate the impressions of others about oneself in order to obtain the social approval, acknowledgment, and self-definition one desires (Hogan, in press; Schlenker, 1980, in press-b).

From a different but related perspective, the self is conceived as inseparable from the society of which it is a part and by which it is produced. The symbolic interactionist perspective assumes that people's behavior in

any situation is the result of constructed meanings associated with that situation, meanings that are the result of social experience and the object of people's cognitive interpretation (Meltzer, Petras, & Reynolds, 1975). The position of the self is central in this perspective and closely related to Bandura's approach in that every behavior is the result of reflection and socially derived interpretations or meanings that cues in the current situation call forth. These meanings are built around knowledge about the relationship between one's self as a social actor and the perspectives of others as receivers and evaluators of one's actions. According to Mead (1934), the fundamental process of interaction is communication, i.e., the transmission and reception of signals and symbols that convey culturally shared conceptions of social reality (Mead, 1934; Petras, 1968). In order to effectively communicate, one must be aware of oneself as the object of others' thoughts. Mead traces the development of this awareness through a transition from an egocentric "I" orientation to communication, to a "me" orientation in which one recognizes that others have different perspectives, and one adopts these perspectives in tailoring messages to others (Mead, 1934).

The communication process places the self in the pivotal position of receiving and interpreting data observed or inferred from the situation. Taking the perspective of

others in interaction is necessary for effectively estimating the likelihood of successfully performing a behavior and obtaining the desired reward.

Mead's idea on the role of self as interpreter of experience is closely related to the script approach of Schank and Abelson (1977) and Langer (1978). According to this approach, people gather information from their social experiences and construct scripts which contain the narratives of various types of social encounters. Scripts are schemas (organized mental representations or categories of objects or events) that specify a sequence of actions related causally and temporally (Schank & Abelson, 1977; Nelson, 1981). When people enter an interaction, they are likely to look for cues that might refer them to an appropriate script to invoke in the situation. The self is the unit that selects, engages, and performs the scripts appropriate to the particular situation.

Script theory is relevant to present purposes, as is the construction of social meanings through role-taking, because both develop throughout childhood (Mead, 1934; Nelson, 1981). One goal here is to assess the development of children's knowledge of the self in social settings. When do children become aware of the processes of role-taking in others and script enactment by others in certain social situations? When do they understand the interpersonal factors involved in self-presentation situations?

One approach that combines and applies symbolic interactionism and an early form of "script theory" is the dramaturgical approach of E. Goffman (1955, 1959, 1967, 1971). Goffman's ideas center around the process, structure, rules, and conventions that comprise social behavior. His main focus is on the nature and function of the rituals of social life as these facilitate and stabilize social interaction (Goffman, 1959). It is called the dramaturgical approach because of the analogy made between social behavior and theatrical performance. The central concepts are "face" (something presented to another that reflects the actor's desire to have and maintain a particular interaction); "performance" (any attempt to influence another); "lines" (the rituals of communication which convey both interactants' meanings and goals in the situation); and "fronts" (the settings manipulated to affect interactions in desired ways) (Goffman, 1959).

For psychologists, the notion of face is particularly relevant in providing a position in which to put the self as individuals interact with others. Face is not necessarily a completely accurate reflection of someone's inner self (private beliefs and feelings), but rather a posture or demeanor that enables one to interact smoothly with and obtain desired rewards from others. This aspect of self, as transient and situationally influenced, has since been formalized in terms of images of self that one projects in

social interaction (Gergen, 1968; Schlenker, 1980; Turner, 1968). In addition, these images and their relationship with other aspects of the self-concept have become prominent vantage points for viewing the self and identity in social behavior (Schlenker, in press-b), and more will be said of this later.

It is reasonable to expect that understanding the variable relationship between external behavior and internal self-conceptions develops throughout childhood. Children's understanding of this relationship with regard to social anxiety is a major focus of the current study. Couching the development of this understanding in terms of symbolic interactionism, social learning theory, script theory, and the self-presentation approach serves to focus attention directly on the position of self in social interactions. This focus is central to the propositions of Schlenker and Leary's (1982) model of social anxiety as a self-presentational phenomenon and is discussed below.

#### Self-presentation and social anxiety

Anxiety in the presence of others is an experience with which everyone can identify. When people foresee interacting with significant others, they may feel apprehensive and nervous about the encounter and experience psychological distress. In these situations, people may manifest their distress through psychological or behavioral

maneuvers to somehow withdraw or dissociate themselves from the situation in order to minimize the aversive nature of the experience. What emerges as a common element in this experience is the fear of being the focus of another's attention and evaluation. The individual is aware that his or her behavior or demeanor in the presence of others will affect the way he or she is regarded by them, and the individual is doubtful of being regarded in the ways he or she desires.

The existence of social anxiety as a distinct subset of general anxiety has been well-documented (Magnusson & Ekehammar, 1975; Miller, Barrett, Hampe, & Noble, 1972; Sarason, 1978; Strahan, 1974). In factor analytic studies on the dimensions contained in anxiety and fear inventories separate factors emerge related to social as well as nonsocial situations (e.g., Magnusson & Ekehammar, 1975). For example, Magnusson and Ekehammar (1975) analyzed people's ratings of the potentially fearful situations contained in their Individual's Reactions to Situations (IRS) inventory. The dimensions revealed in a factor analysis of the responses included (1) threat of punishment (e.g., the person has broken a social rule and is being called to account), (2) ego threat (e.g., the person is confronted with an upcoming social performance--giving a speech starting a new job), (3) threat of pain (e.g., being physically harmed), and (4) inanimate threat (e.g., being

afraid of storms or the dark) (Magnusson & Ekehammar, 1975). The threat of punishment and ego threat indicate that situations involving social interaction are conceptually distinct from other anxiety-provoking situations. The threat of punishment implies the individual expects to or has already behaved in an inappropriate way and is in the predicament of mending the negative evaluation made by others. Ego threat suggests that the individual foresees or is involved in social interaction where he or she is the focus of the attentions and evaluations of others.

The experience of social anxiety has been the object of a growing body of research (see for example, Curran, Wallander, & Fischetti, 1980; Hurt & Preiss, 1978; Leary, 1980; Schlenker & Leary, 1982; Zimbardo, 1977). The kinds of social settings studied are varied and the anxiety experience has been called many things, for example, shyness (Leary, 1980; Leary & Schlenker, 1981; Pilkonis, 1977; Zimbardo, 1977), heterosexual social anxiety (Curran et al., 1980), interaction and audience anxiety (Buss, 1980), embarrassment (Buss, Iscoe, & Buss, 1979), and communication apprehension (Hurt & Preiss, 1978). The common theme in virtually all these investigations is the endangered position of the self in social interaction. As such, the experience of social anxiety is directly related to real or imagined social pressures to behave in ways that will allow the actor to obtain desired reactions from real or imagined

audiences. Due to the reliance of individuals on the regard in which others hold them, the suggestion has been made that the essential ingredient of social behavior is the desire to appear to others in ways that will achieve desired evaluations from them (Goffman, 1959; Schlenker, 1980).

Although all the above studies directly relate to the position of the self, in social settings there are different theoretical perspectives on the origins of social anxiety in individuals and explanations of why and how it occurs. There appear to be primarily three such perspectives (Schlenker & Leary, 1982) relating to (1) skills deficits, (2) cognitive self-evaluation, and (3) conditioned anxiety reactions. According to the skills deficit perspective, persons who suffer from social anxiety do so because they lack required skills of interpersonal behavior (Arkowitz, Hinton, Perl, & Himadi, 1978; Curran, 1975; Curran, Wallander, & Fischetti, 1980).

With regard to interpersonal behavior generally, the skills deficit perspective has received some support. In a program designed to increase children's interpersonal understanding and behavioral effectiveness, Spivack and Shure (1976) presented scenarios of social situations to children with social adjustment problems. They involved children in these hypothetical situations, asking them how they might feel and react as the actor and other story characters. Getting children to generate alternative

behaviors and to recognize the actions and reactions of actors in social settings was shown to increase these children's interpersonal skills. The deficits addressed by Spivack and Shure seem to reflect an inability to consider others' perspectives when in social settings, i.e., an ineffective or underdeveloped sense of the interactive role of the self in social situations.

Although the skills deficit perspective is a reasonably productive way to view social anxiety, it has been suggested that the primary mediating factor in ineffective social behavior is not a lack of skills so much as an individual's perceptions of lack of skills (Goldfried & Sobocinski, 1975; Kanter & Goldfried, 1979; Rehm & Marston, 1968). Research has shown that people who score highly on measures of social anxiety are more likely than nonanxious people to hold unrealistic and negative beliefs about themselves (Barrios & Shigetomi, 1979; Goldfried & Sobocinski, 1975). In addition, people who hold negative self-beliefs and low expectations of social success demonstrate higher levels of anxiety when imagining themselves in social situations. One successful method of reducing interpersonal anxiety in persons who suffer it is the counseling method known as "rational restructuring" in which the client is taught to realistically reevaluate the types of situations that are so anxiety-producing. This restructuring of the person's perceptions of him or herself in relation to these

situations allows the person to achieve a heightened sense of self-control (Kanter & Goldfried, 1979). These findings not only give support to the connection between the self and the possibility of evaluation from others in producing anxiety, but also the central role of the self-concept (self-relevant images, beliefs, and feelings) in mediating social behavior.

The conditioning approach to anxiety suggests that all types of anxiety, including social anxiety, are the result of experiences associating certain objects and situations with aversive consequences (Ax, 1953; Malmo, Boag, & Smith, 1957). A past history of nonreward or punishment for performing social behaviors (e.g., expressing one's opinion) produces anxiety in an individual when he or she is confronted with engaging in those social behaviors again. The counseling technique of systematic desensitization is built on a process of rewarding anxious persons for slowly approaching the fear-inducing object or situation. This technique has been shown to be very useful in working with anxious people across a variety of situations, for example, dating and speaking (Lang, Sroufe, & Hastings, 1967; Paul, 1966). The relevance of the conditioned anxiety perspective is the acknowledgment of the crucial role of rewarder or nonrewarder played by others in the social environment on the production of anxiety. However, because it does not directly involve an individual's cognitions and perceptions

and the role these play in mediating social anxiety, this perspective is somewhat limited.

Based on the three theoretical perspectives on social anxiety, the position of the self in social anxiety is somewhat unclear though implied. The skills deficit perspective quite rightly suggests that lacking interpersonal skills can create anxiety, but does not deal with the psychological processes relating skills or a lack of skills to dimensions of an individual's self-concept and identity. For example, what does lacking a skill mean in terms of the individual's self-image? Likewise, the conditioned anxiety perspective places the experience in the social domain, but does not seek to relate the experience to the individual actor's role in the situation. The cognitive self-evaluation perspective does include the individual's perceptions of him or herself in relation to others, but does not show how these perceptions may be integrated with and affect the person's identity and self-concept.

Recently, Schlenker and Leary (1982) have proposed a model of social anxiety that directly involves aspects of one's self in the process of the experience. Basic to the experience is the realization that one is or will be the focus of significant others' attention and evaluation. The process underlying the experience is that of self-presentation. The self-presentation approach comes out of the tradition of symbolic interactionism and the notion of the self as mediator in behavior.

Through experience, people have expectations about the structure and function of many types of interactions. From the perspective of Goffman (1959), the purpose of these expectations and the culturally transmitted nature of all interactions is to endorse and maintain a stable social community. There are tacitly agreed-upon forms and patterns of interactions that arouse people to expect and engage in learned sets of behaviors. Interactions with agreed-upon form and pattern are the conventions, rituals and roles of social life. Adding to this map of social interaction, psychologists (e.g., Jones & Schneider, 1968; Schlenker, 1980; Tedeschi, 1981) have emphasized the role of the self as an active perceiver and mediator of behavior, an expecting, reflecting, and feeling agent for processing self-relevant information, constructing acceptable self-views, and projecting into future situations. The view emerges of people as capable of self-regulation (Bandura, 1977) by reading the narrative of their past and planning future scenarios.

Based on the idea that we are dependent on others for approval, reward, status, and self-validation, the notion of self-regulation has several important implications. It is often in people's best interest to be evaluated positively by significant others. People may desire or feel obliged to control which aspects or information about themselves they allow to become public knowledge. As a result, people can

control the evaluations others have of them through being aware (consciously or unconsciously) of the position and effect of the self in social interactions. According to the self-presentation approach, people interacting with others convey information about themselves by their demeanor, behavior, and reactions to particular social settings. Social anxiety arises when this communication of information from self-to-other does not or is not likely to produce the desired evaluation (Schlenker & Leary, 1982). Because of the comprehensiveness and utility of the Schlenker and Leary model, it is summarized below and related to the goals of the current study.

According to the model, social anxiety is "anxiety resulting from the prospect or presence of interpersonal evaluation in real or imagined social settings" (Schlenker & Leary, 1982, p. 642). The experience is viewed as a self-presentational phenomenon, i.e., one in which an individual makes a conscious or unconscious attempt to control self-relevant images before real or imagined audiences (Schlenker, 1980). As such the role of the self in the social setting becomes critical as the individual feels that he or she will in this case be unable to fulfill some self-presentational goal. Generally speaking, the goal is to be regarded in a desired way on some dimension relevant to one's identity.<sup>1</sup>

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<sup>1</sup> In this case, identity "is a theory (or schema) that is constructed about how one is and should be perceived,"

When someone is motivated to be regarded in a particular way, either the audience is significant to the person, the identity-image is important, or both. Such a person will find the image successfully or unsuccessfully claimed based on the reactions and evaluations of the audience. In recognizing this evaluative process, a person understands the role of the self and others in social behavior. One important task for someone engaging in self-presentation is to anticipate or gain knowledge of what the audience is thinking or likely to think about the actor. Understanding the relationship of self vis-a-vis others in social settings implies taking account of each actor's viewpoint on the other actor(s), the interaction goals, and constraints of the situation.

According to Schlenker and Leary, "social anxiety arises in real or imagined social settings when people are motivated to make a particular impression on others, but doubt that they will do so, having expectations of

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regarded and treated in social life" (Schlenker, in press-a). Elements of one's identity include facts, beliefs, feelings, and standards composing one's nature. The images of one's identity that one projects in social interaction reflect one's identity but may vary in the sense that they may shift from situation to situation, while not destroying the overall identity. For example, one may define oneself as amiable generally, but recognize situations in which stubbornness is necessary. One's identity and images can be viewed as guides for behavior, representing scripts and roles played out in social situations. Furthermore, one's identity and its images are an aspect of one's overall self-concept which includes other, nonsocial aspects of experience (Epstein, 1973; Schlenker, 1980).

"unsatisfactory impression-relevant reactions from others" (Schlenker & Leary, 1982, p. 643). Implicit in this proposition is the process of reflection or self-evaluation by which the actor will assess the audience's reaction and determine whether the self-presentational goal has been or will be successfully achieved. In the case of social anxiety, actors must anticipate the likelihood that their standard for success will be met. Given an actor who is motivated to impress an audience, as the perceived likelihood of success decreases, the magnitude of the social anxiety experience increases (Schlenker & Leary, 1982).

The factors of an actor's motivation to impress another and his or her perceived ability to do so are crucial antecedents to the social anxiety experience (Schlenker & Leary, 1982). The motivation to convey a particular image to an audience increases as do the importance of the image to one's identity and the importance of the particular audience. The importance of the image can be a function of its centrality or salience in relation to one's overall identity and the worth or value of the outcomes associated with claiming the image. The importance of the audience is a function of its power to mediate the person's goals in the situation.

Insofar as motivation to impress others can set the stage for social anxiety, it has been shown that the type of situation one expects can influence feelings of anxiety,

fear or shyness. For example, a first date carries great evaluative implications and increases one's motivation to impress the other, and it is a situation that most people feel induces fear or shyness (Zimbardo, 1977). This "first encounter" situation implies greater concern for how one will appear to others, perhaps in part because first impressions are so highly related to later evaluations. An upcoming test will presumably increase one's self-presentational concerns more than an upcoming game, because of the greater weight, for the most part of test performance over game performance. For example, children talk less when confronted with a test versus game (McCoy, 1965), and decreased or interrupted communication has often been associated with anxiety (Daly, 1978).

In addition to the motivational effects of the type and importance of a particular situation, dimensions of the audience can influence an actor's motivation. For example, the size of the audience has been shown to lead to increased nervousness, stuttering, and less talking (Hurt & Preiss, 1978; Jackson & Latane, 1981; Levin, Baldwin, Gallway, & Paivio, 1960; Porter, 1939). Presumably, an increased focus on the individual due to increasing numbers in an audience raises concerns about how one will be regarded in the situation (Buss, 1980; Fenigstein, 1979; Fenigstein, Scheier, & Buss, 1975).

In any social setting there is bound to be at least some degree of attention or awareness of one's self as the object of other's impressions, at least in older children and adults. This awareness of oneself as a social object is central to the construct of public self-consciousness (Fenigstein, 1979). People who are publicly self-conscious are prone to feeling like they are being observed by others, have a heightened sense of others' reactions to them, and consider others as acting so as to directly affect them (Fenigstein, 1979; Schlenker & Leary, 1982). Due to this heightened self-attention, publicly self-conscious people show "an increased concern with the presentation of self and the reactions of others to that presentation" (Fenigstein, 1979, p. 76). This state of heightened self-attention can be not only an individual trait, but also a state created by elements of the situation. Induced self-attention is viewed as being a state of "objective self-awareness," where one's attention is momentarily focused inward due to environmental factors (Duval & Wicklund, 1972). A typical induction of objective self-awareness is to place experimental subjects in front of a mirror, camera, or tape recorder, thereby making the self salient. The induction of objective self-awareness appears to increase individuals' attention to themselves, to how they are being viewed by others, to whether or not they are maintaining their own standards for social behavior, and to the details of their behavior

(Deiner & Srull, 1979; Duval & Wicklund, 1972; Hull & Levy, 1979). According to Duval and Wicklund (1972), objective self-awareness centers on self-evaluation in which the objectively self-aware person will compare his or her behavior with standards for conduct and enjoy satisfaction or suffer dissatisfaction based on the results of the comparison.

Increased attention to the self in social settings and evaluations of self in relation to standards and hoped-for performances seems to increase motivation to perform satisfactorily. This increased motivation can set the stage for social anxiety. Self-focused attention as represented by those high on public self-consciousness (measured by the Self-Consciousness Scale, Fennigstein, Scheier, & Buss, 1975) has been shown to be significantly related to measures of social anxiety (Schlenker & Leary, 1982). For example, public self-consciousness is positively correlated with measures of shyness (Cheek & Buss, 1981), interaction and audience anxiousness (Leary, 1980), as well as with self-reports of shyness (Pilkonis, 1977a). What occurs in a social anxiety situation inherently involves looking ahead to or finding oneself in the position of being the object of another's attention. It is reasonable to expect that the idea of another's presence, attention, and impending reaction to the actor engages the actor in the sort of self-evaluation process discussed by Duval and Wicklund (1972).

If, during this self-evaluation, the actor comes to doubt his or her ability to behave in ways that might successfully produce a desired reaction, then social anxiety becomes a reality.

People engaged in social interaction expect certain outcomes. Although one might not be consciously engaged in assessing interaction outcomes--how likely is one outcome as opposed to another, how acceptable or unacceptable is each--there is inevitably some assessment of how one's behavior fits with one's standards for the situation. In terms of social anxiety, the assessment phase primarily takes place prior to and during the interaction (Schlenker & Leary, 1982). It is during this phase that a person with a self-presentational goal considers (1) what are the necessary abilities or attributes fulfillment of the goal requires, (2) whether or not he or she possesses them and (3) whether he or she will be able to convey them successfully to the particular audience (Carver, 1979, p. 1266; Schlenker & Leary, 1982). To the degree that the actor doubts he or she will be able to behave in ways commensurate with some personal or social standard held for the behavior, he or she will experience social anxiety.

Perhaps the clearest case of low expectations of successfully claiming an image is when one is not aware of the appropriate behavior in the situation (Schlenker & Leary, 1982). Research has shown that people report feeling

more fearful or anxious when confronted with a novel situation (e.g., meeting someone new for the first time at a new club) (Pilkonis, 1977b; Zimbardo, 1977). It has been suggested that the social anxiety attendant to novel situations reflects the absence of schemas or scripts related to these situations (Schlenker & Leary, 1982). From this perspective the importance of role-enactment for individuals in social settings becomes clear, i.e., the person without a script is "lost" and anxious about what to do or how to do it in the same way an actor on stage may feel without the lines and stage directions he or she is to enact. In effect, the anxiety in these situations arises from a sophisticated understanding of the position of self in social settings, i.e., that one's social behavior is the object of the attention and scrutiny of others. From the perspective of symbolic interactionism, the person/actor has acquired at least a general schema for social behavior, although he or she lacks schema for certain specific social situations.

Another factor contributing to low expectations of being regarded by others in desired ways is the perceived lack of ability to achieve the self-presentational goal. In this case, people may be aware of what should be done to achieve the particular audience reaction, but feel they do not possess the requisite skills, attributes, or resources (Schlenker & Leary, 1982, p. 650). For example, in order to

claim the image of intelligence, one must or should have or produce evidence to support the claim, say, by referencing one's academic achievements or by speaking in a knowledgeable way on a broad number of topics. If one tries to claim intelligence but realizes one might not have the foundation to support the claim, then one runs the risk of being "found out," resulting in undesirable evaluations and reactions from the particular audience. Most adults are quite probably aware of this scenario of claiming to be something one is not and being called to judgment for it. The quandary is wishing to be regarded in a certain way (i.e., highly motivated to impress another) but expecting failure and its attendant suffering. Social anxiety arises from this assessment and the question one might ask oneself, "Should I give it a try?" Children, for whom knowledge of social behavior is incomplete, may not be so concerned with this assessment stage and foresee successful outcomes even in the face of past failure. (Research indirectly supports this contention and more will be said of it in the next section.)

The perception of the lack of ability to achieve one's self-presentational goal is probably based in part on one's past failure in similar situations (Bandura, 1977; Schlenker & Leary, 1982). It is during the assessment phase that such experiences yield low outcome expectancies when the past makes failure likely. Mixed with high motivation to impress an audience, this situation should produce social anxiety.

The above account takes the position that people are reasonably accurate in their assessment of past and future performances, but as discussed earlier, people may have an unrealistic set of negative self-beliefs concerning their proficiency in social behavior. Furthermore, these negative self-evaluations have been shown to be related to social anxiety (Rehm & Marston, 1968). Whether one's perception of lack of ability is a distortion or an accurate assessment of one's ability, when combined with motivation to impress another, the perception leads to social anxiety.

The convergence of one's motivation and one's perceived ability embody the essence of self-presentational concerns (Schlenker, 1980, in press-b; Schlenker & Leary, 1982). At least five types of states pertinent to self-presentational concerns can be distinguished (Schlenker, in press-b). First, when people are not motivated to impress another person, their perception of their ability is irrelevant in the encounter, and they simply do not have any self-presentational goals. They are indifferent to the situation. Second, when people are assured of another's evaluation on some identity-relevant dimension, they probably feel complacent about their performance in the situation. Third, people who wish to impress another and who perceive themselves very able to do so successfully feel secure about themselves and their behavior. Fourth, people who are motivated to make a particular impression, but

perceive themselves as only moderately able to successfully claim the image, perhaps feel challenged to behave successfully and feel somewhat socially anxious in the face of this challenge. Finally, people who are motivated to impress others in a situation, but perceive themselves unable to do so should experience a great deal of social anxiety (Schlenker, in press-b). Although each of the situations is of great interest in understanding social anxiety, they were enumerated as important elements in the process of establishing and maintaining a relationship (Schlenker, in press-b). In an attempt to understand how children relate and understand the antecedents of social anxiety, i.e., actor's motivation and ability, two levels of each of these antecedents were crossed to allow comparison of all combinations of factors. As a result, only the "secure" (high motivation and high ability) and the "anxious" (high motivation and low ability) scenarios from the Schlenker topography were included here. In addition, actors portrayed as low in motivation and low in ability and low in motivation and high in ability were included to complete the crossing of factors. Children were asked to respond to these actors with regard to the types of behavior and feelings the actors may manifest. A consideration of some of these behaviors follows.

Behaviors and Social Anxiety.

The experience of social anxiety is an aversive one and is associated with nervous reactions and defensive maneuvers and can include decreased, hesitating, and less articulate verbalizations, nervous habits (e.g., fidgeting with one's hands), smiling, head nodding, and signs of physical and/or psychological withdrawal (Schlenker & Leary, 1982).

One of the most well-documented effects of anxiety on social behavior is the production of deficits in communication skills. In a review of research, Murray (1971) found that speech facility and anxiety are curvilinearly related in an inverse-U function, i.e., speech productivity increased with increasing anxiety up to a point, then diminished. The fact that high levels of anxiety do decrease communicative effectiveness has received substantial support (Borkovec, Stone, O'Brien, & Kaloupek, 1974; Daly, 1978; Pilkonis, 1977b; Swartz, 1976). In addition, the communication patterns of socially anxious people seem to be directed at minimizing contact with audiences (Cheek & Buss, 1981; Schlenker & Leary, 1982).

The idea that anxious people try to distance themselves from others in anxiety-provoking situations has been supported by research (Cheek & Buss, 1981; Modigliani, 1971; Pilkonis, 1977a; Zimbardo, 1977). For example, Cheek and Buss (1981) demonstrated that shy people who also value being with other people tend to talk less and avert their

gaze more than non-shy people. Also, people avoid situations in which embarrassment is likely (Brown & Carland, 1971) or in which they fear being evaluated by others (Cheek & Buss, 1981). When involved in an anxiety-provoking situation, people may resort to very global responses that reduce the intensity of another's evaluation, for example, by smiling, agreeing a lot, nodding one's head, etc. These responses have been shown in shy females in unstructured situations (Pilkonis, 1977b) and have been interpreted as allowing individuals to appear agreeable in situations where they doubt their ability to obtain a truly positive evaluation (Leary & Schlenker, 1981).

Although there is no research on this topic with children, they should become more sophisticated with age in recognizing the relationship between anxiety and behavioral reactions to it. It is reasonable to suggest, for example, that younger children would be less able than older children to recognize the effects of social anxiety on the kinds of communicative and interpersonal behaviors discussed above. Presumably, younger children have less well-developed ideas of the position of the self in interaction, perhaps because they have less well-developed ideas of the self, generally. More will be said of this later.

#### Situations and Social Anxiety.

As mentioned earlier, social anxiety has been implicated in several different social situations, for example,

heterosexual dating anxiety, embarrassment, and speech anxiety. Schlenker and Leary (1982) propose that the underlying dimensions on which to position the various types of social anxiety are (1) the degree to which the actor's behavior is contingent on other's behavior, and (2) whether the actor is anticipating self-presentational failure or has already failed to achieve a self-presentational goal (Schlenker & Leary, 1982, pp. 662-663). Based on the distinction of Jones and Gerard (1967), contingent interactions are those in which one's own behavior is determined by the behavior of the other interactant and vice-versa. These situations are typified by unstructured spontaneous interactions. Noncontingent interactions, on the other hand, are those in which one's behavior follows a script or plan and is less dependent on others' behavior in more structured situations, for example, making a speech acting in a play, teaching a class. In noncontingent situations the role and one's knowledge of the role are central features, while in contingent interactions the role is less well-defined, giving the person somewhat more behavioral latitude in the interaction.

Based on this dimension it is possible to classify social anxiety settings by the degree to which they are contingent or noncontingent. Clearly, for example, dating anxiety is based on contingent interaction, while speech anxiety arises in noncontingent interactions. The labels "interaction" and

"audience" anxiety have been coined to refer to anxiety arising in the contingent and noncontingent interactions, respectively (Schlenker & Leary, 1982).

Although the same antecedents of social anxiety apply in both interaction and audience anxiety situations, it is not clear exactly how the experiences differ in terms of people's responses to them. Noncontingent interactions, on the one hand, could produce greater concerns about audience evaluations given the increased numbers of audience members. In addition, performing before large audiences may increase pressures on actors for whom such performances are novel. At the same time, noncontingent situations involve more planned, scripted behaviors, which might then decrease an actor's concerns over knowing what to do in the situation. Contingent interactions, on the other hand, may reduce concerns over audience evaluations because of small audience size, often only one other. Also, contingent interactions may produce less anxiety because this is perhaps the most common social experience people have. Still, these situations may produce significant anxiety in actors because there is usually no or very little prepared scripts for a particular interaction. One goal of the current research is to assess the degree to which these two types of situations elicit different judgments from observers as to how the person in the situations might behave.<sup>2</sup>

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<sup>2</sup> A predicament exists for actors in cases where they have been challenged and proven by circumstances not to have an

Summary

From the perspective of symbolic interactionism and the self-presentation approach to social behavior, the present study will assess the nature and development of children's understanding of the position of the self in social life. In order to assess this progression, the formulations of self-presentation and identity as articulated by Schlenker (1980; in press-b) are most relevant. Their relevance lies in the central position given the self and its elements in the process of social interaction. In particular, the propositions relating social anxiety to self-presentation as presented by Schlenker and Leary (1982) are very relevant as tools in assessing children's understanding of the role of self in social interaction. To the extent that children are able to understand self-presentational concerns in others, they should be able to recognize other's motivation to impress someone and assess their ability to succeed. It must be noted that, while the definitions and propositions

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image they were claiming to possess (Schlenker, 1980). The experience of this "predicament anxiety" results from being forced to restore the regard one desires from others through remedial self-presentations, for example, by proffering excuses and justifications for the infraction. There is justification for the separation of predicament anxiety from other forms of social anxiety. Recall, for example, that the factor analysis of Magnusson and Ekehammar (1975) revealed two types of anxiety situations related to social interaction: one involving anticipation of possible self-presentational failure, and one in which the actor has already failed. Conceptually both types of social anxiety (anticipated or actual) represent concerns about possibly or actually being in an identity-threatening predicament (Jackson & Latane, 1981; Schlenker & Leary, 1982).

of the Schlenker and Leary social anxiety model were used in making predictions about the variables affecting anxiety, the current study was not a direct test of the model. Measures were taken from observer-subjects as to the influence of an actor's motivation and ability on social anxiety. It was expected that observers' judgments would conform to the overall propositions of the model, and one goal of the research was to help illuminate the applicability to observers' judgments.

Two developmental processes seem to be involved in this understanding: social cognitive development (in terms of specific abilities, e.g., role-taking) and development of self-understanding as it relates to children's schemas regarding the position of self in social interaction. In the following section, these perspectives and developmental processes will be addressed in detail.

### Social-cognitive Development

#### Introduction

The development of social cognition has been the object of increasing attention and research (for a review see Flavell & Ross, 1981; Shantz, 1975). Many abilities are included under the heading of social-cognitive development, ranging from such broad issues as the acquisition of self-knowledge (Mead, 1934) and the development of genetic epistemology (Piaget, 1932/1965) to more narrowly focused

investigations such as the nature of early mother-child interaction (Frankel, 1980) and self-recognition in preschoolers (Nolan & Kagan, 1980). The major outcome desired from the myriad investigations into social-cognitive development is a better understanding of the forms and progression of individuals' ability to make social inferences. This ability allows individuals to construct meaningful and effective perceptions of their social world. With regard to assessing the development and nature of children's understanding of social anxiety, several social inference abilities stand out as particularly relevant. These include the ability to (a) take the role of another person, (b) attribute motivation and causality to another's behavior, and (c) understand one's self in social behavior through the construction and use of social scripts and recognition of private and public self-identities as they relate to the expression of self-presentational behavior. Each of these social-cognitive skills and their development will be discussed below.

Studies of anxiety in children, as in that with adults, deal primarily with two issues. On one hand, the research focuses on childhood anxiety from the perspective of clinical psychology in an effort to establish the parameters and antecedents of the pathological forms anxiety can take (Shaw, 1978). On the other hand, there are a number of studies dealing with transient, state anxiety, revolving

around anxiety experienced prior to performance on some task, for example, tests and sporting activities (Elardo & Caldwell, 1979; McCoy, 1965; Simon & Martens, 1979; Wade, 1981). Both these areas of research are relevant to present purposes, because in each case elements related to social interaction often emerge as attendant pressure creating the anxiety experience. Both are limited, however, in the first case because the primary concern is with diagnosis and measurement of clinical forms of anxiety and in the second case, because the primary antecedent of the anxiety experience is seen as the test or performance itself, excluding the effects of possible social evaluation on the anxiety experience. The relevance of these lines of research in assessing children's perceptions of social anxiety and self-presentation will also be discussed below.

#### Social-cognitive abilities

Among the social-cognitive abilities acquired during childhood, the ability to take the role (or perspective) of another person is perhaps most central. Role-taking ability includes the nonsocial ability of understanding that others have different perspectives when perceiving their physical environment and the social ability of understanding that others have different psychological experiences (thoughts, feelings). For effective usage in social interactions, role-taking requires that the individual integrate

observable information about the situation the other is in with information gained by inferring the other's unobservable perceptions of the situation. The inferences made would most likely include understanding the other's motivations, intentions, goals, and feelings with regard to the interaction as well as inferences about the other's overall character. Research has shown that initially children are primarily egocentric in their social role-taking ability evidenced by their lack of recognition of another's internal psychological perspectives (Feffer, 1970; Flavell, 1968; Selman, 1971; Selman & Byrne, 1974). The progression from this egocentric perspective is generally as follows: (1) at first the child lacks the ability to infer internal perspectives of others, (2) the child then learns that others have different psychological experiences, but fails to see the implications these have for interactions with others, and (3) the child finally is able to infer that others have different internal perceptions, is able to integrate these inferences with his or her own perceptions, and can use them to more effectively interact with and make judgments about others (Forbes 1978).

Presumably, as their role-taking skills mature, children become better able to understand that others' as well as their own overt behavior may not necessarily be a direct reflection of internal covert factors such as motivations and cognitions. Furthermore, younger children would

probably be less likely to integrate information about others' perceptions and interaction goals and formulate an accurate picture of how others are likely to respond to and feel in those situations.

Accurate social judgments depend on more than simply perceiving the presence or absence of an actor's motivation to behave in a particular way or an actor's ability to do so. Given the predicted variations in the experience of social anxiety, the task of judging actors in such situations becomes more complex. It becomes incumbent on the observer to make finer discriminations when evaluating the actor's degree of motivation, the actor's perceived level of ability, and the nature of the situation itself. Presumably, younger children will be less able to integrate information about these factors when making judgments as to the actor's feelings, thoughts, and behaviors in a social anxiety situation.

Children's awareness and use of cues in evaluating others has been studied extensively (for a review see Keasey, 1977). The issue in Piaget's (1965) seminal work on moral reasoning was the different types of information used by children of various ages in evaluating an actor who has committed a moral transgression. In the original broken cup study, the actor was portrayed as either having good or bad motives/intentions in the situation and either causing a small or great amount of damage. The major finding of this

effort was a progression from children (under 7) relying primarily on salient, objective cues (e.g., amount of damage) in making judgments about the naughtiness of the actor to children relying on subjective nonsalient cues (motives/intent) in the situation. The critical factor in the distinction between objective and subjective moral reasoning was the ability of older children to perceive and utilize information about the motives/intentions of the story character. Replications generally have supported this notion (Boehm, 1962; Boehm & Nass, 1962; Grinder, 1964; Johnson, 1962). It appeared that the use of subjective information about the actor's motives and intentions as a mediator in children's judgments did develop later than reliance on purely objective information.

The issue of subjective versus objective reasoning has broadened to include research on the nature and development of children's explanations of behavior, extending beyond the domain of moral judgments (Berg-Cross, 1975; Keasey, 1977). Included in these subsequent investigations are attempts to understand children's developing ability to perceive and spontaneously generate factors that can plausibly be viewed as the causes or reasons for an actor's behavior. Specifically, the degree to which children recognize and integrate information about both the actor and situation appears to increase with age (Darby & Schlenker, 1982a; Keasey, 1977). Factors affecting childrens' social

judgments have included (1) the consequences of the actor's behavior, with positive or negative valence and affecting either human or nonhuman targets (Armsby, 1971; Berg-Cross, 1975; Costanzo, Coie, Grumet, & Farnill, 1973; Weiner & Peter, 1973); (2) the intentions of the actor; that is, did the actor foresee the consequences and attempt to obtain them (Berndt & Berndt, 1975; Shaw & Sulzer, 1964); (3) the motives of the actor, usually presented as good or bad, but including reasons generated for the actor's behavior (Berndt & Berndt, 1975; Karniol & Ross, 1976; Piaget, 1965; Rule & Duker, 1973); (4) the actor's feelings, usually measured by empathic feeling for the actor (Feshbach & Feshbach, 1969; Feshbach & Roe, 1968); (5) the character of the actor (Darby & Schlenker, 1982b); (6) the responsibility of the actor (Darby & Schlenker, 1982a; Shaw & Sulzer, 1964).

In the most typical paradigm, children are asked to judge actors depicted in stories interacting directly or indirectly with others and producing some outcome (small versus great and/or positive versus negative consequences). Factors such as motives, intentions, and character are presented in ways that require children to make inferences about their presence and nature in the main story character. Initially, the findings of such investigations showed younger children relying more than older children on information about the outcomes produced by the actor to the exclusion of information presented earlier in the story.

about the actor's motives and intentions. Subsequent methodologies have more clearly distinguished between good versus bad motives and between intentional versus accidental acts (Costanzo et al., 1973; Karniol & Ross, 1976), revealing that younger children (preschoolers) are aware of these distinctions and use them when evaluating a story character (Armsby, 1971; Buchanan & Thompson, 1973; Farnill, 1974).

Evidence has since accumulated to suggest that the progression from objective to subjective reasoning is not so very clear (Gutkin, 1972; Morrison & Keasey cited in Keasey, 1977). For example, Gutkin (1972) presented 6-, 8-, and 10-year-olds with two actors in two moral transgression stories in which the severity of the consequences was either varied (high versus low) or was held constant. The story character's action was depicted as either intentional or accidental and as the result of either a good or bad motive. The results suggested a four-stage progression. In the first stage, children rated the characters in both stories as equally naughty when they produced equally severe consequences, showing no use of information about intentions and motives. In the second stage, children based their ratings on intentionality and motives when consequences were identical, but based them on consequences when all three factors varied. In the third stage, children's judgments were based more on the actor's intentions/motives than on

consequences when all factors varied, but considered consequences more important when consequences alone were different across stories. In the fourth stage, children considered the actor's intentions/motives more than consequences when judging the actor's naughtiness in all conditions (Gutkin, 1972).

What emerges from this kind of research is a picture of children at preschool age to late childhood who may be aware of another's motives and intentions, but who differentially weight these factors, along with information about consequences, in evaluating another's behavior (Berg-Cross, 1975; Darby & Schlenker, 1982a; Rybush, Roodin, & Hallion, 1979). The evidence from Gutkin's (1972) study suggests this kind of differential weighting of information. In addition, children apparently recognize and use different inferred information about the cause of an actor's behavior at different ages. For example, Peterson and Keasey (cited in Keasey, 1977) have shown that in judging transgressive actors, children use information about motives (whether the actor is good or bad) prior to using information about the actor's intentions, showing this preference as early as age three. The use of information about another's intentions appears later (by age 8) where the task is more directly to attribute cause to another's behavior, presumably a more complex task. As children grow older, they become more adept at formulating plausible explanations of another's

behavior. In order to do this children probably learn to evaluate all the relevant elements related to the actor and situation, integrate this information, and arrive at reasonably accurate accounts of another's behavior.

In making social judgments, the development of children's ability to make social attributions becomes an important issue. It is reasonable to suspect that very young children have some notion about causality, gained through their experiences of learning to produce desired outcomes by acting on their environment (Piaget, 1954). Furthermore, it is likely that a child's notions of cause and effect become increasingly more elaborate as do his or her interactions with others and the environment. The acquisition of the concept of psychological causes of behavior appears to develop in the preschool years (Piaget & Inhelder, 1969). At this stage, however, children are often likely to imbue even inanimate objects with a motivation to behave. It is not until around 6 or 7 years of age that children, having become more proficient at recognizing the subjective perspectives of others, begin to distinguish between covert subjective states and overt behavior and appreciate that psychological states can in part determine behavior (Selman, 1980).

This rudimentary causal reasoning does not necessarily allow children to make sophisticated assessments of another's behavior. There is evidence to suggest that the

higher-level ability to appreciate multiple causes of behavior, including elements of the situation as well as the internal perceptions of actors in the situation, develops throughout childhood (Karniol & Ross, 1976; Smith, 1975; Shultz, Butkowsky, Pearce, & Shanfield, 1975). Based on the attribution theory of Harold Kelley (1971), researchers have outlined the acquisition of a higher level causal reasoning by investigating children's understanding of the discounting principle and the scheme for multiple sufficient causation. According to Kelley's discounting principle "the role of a given cause in producing a given effect is discounted if other plausible causes are also present" (Kelley, 1971, p. 8). Multiple sufficient causation refers to the presence of an effect and two sufficient causes in which case either cause will be accepted. To make sophisticated causal attributions also requires the observer to consider the inhibitory or facilitative nature of any cause present in the situation. As a result, observers can make stable attributions of causality to either the actor or the environment.

In a study by Karniol and Ross (1976), kindergarteners, second, and fourth grade children were presented with a story involving hypothetical children playing with a toy. In one condition, the child's mother had instructed him or her to play with the toy; in another condition, the child's mother rewarded him or her for playing with it; and in a

third condition, the child played with the toy on his or her own accord. Subjects were asked which child had really wanted to play with the toy. According to Kelley's model, the cause of behavior in the first two conditions should lie in the environment, and in the third condition in the actor. Children's accurate attributions in these conditions would demonstrate their ability to make use of the multiple sufficient cause scheme and the discounting principle. The results showed that second graders used the scheme for multiple sufficient cause more than kindergarteners but less than fourth graders. Kindergarteners failed to make attributions in line with predictions from Kelley's model, but rather cited both internal and external forces as causing the child's behavior in the reward and command conditions, suggesting a partial causal scheme in this age group (Karniol & Ross, 1976, p. 459). (Smith, 1975, obtained the same results with the exception that kindergarteners showed no consistent use of causal schemes in any condition.)

In another test of Kelley's model in childhood attributions (Shultz et al., 1975), 5-, 9-, 13-year-olds were shown pictures of an event and provided with information about the presence or absence of potential causes for the event. In line with Smith (1975), they found no evidence for the use of the multiple sufficient cause scheme in kindergarteners. Further, both 9- and 13-year-

olds showed evidence of understanding the scheme, that is, were able to recognize when one of two causes for the event was sufficient to produce the effect. Thirteen-year-olds, however, made the finest discrimination by recognizing the interactive effects of the inhibitory and facilitative nature of causes. For example, this group was able to discount a present inhibitory external cause and infer the presence of an internal facilitative cause producing the behavior (Shultz et al., 1975).

As these examples demonstrate, the ability to make social attributions evolves throughout childhood. There are parallels between the cognitive skills necessary to make social inferences and the cognitive skills acquired in the nonsocial domain following Piaget's cognitive-developmental stages (Guttentag & Longfellow, 1977). One aspect central to the progression of cognitive skills is centration or the tendency to focus one's attention on the most salient elements in a situation (physical or social) when evaluating it (Inhelder & Piaget, 1958). Decentering is the ability to shift one's attention from one to another relevant cue in the perceptual field, thereby making social inferences more accurate due to increased alternatives to use as explanations. One who is capable of decentering must, then, be able to process more types and greater amounts of information when evaluating events. This capability seems to advance with experience and acquisition of higher-level

cognitive skills. The work of Karniol and Ross, Shultz et al., and Smith taken together shows that young children are unable to decenter to any great degree, while older children (by age 9) show evidence for greater skill at decentering. In the Shultz et al. study the 13-year-olds showed clear understanding of decentering, able to make finer discriminations when explaining the causes of a social action. Presumably older children (above fourth grade) would be more likely than younger children to effectively perceive and discriminate among the various levels of an actor's motivation in a social anxiety situation.

As hypothesized in the previous section, the potential for social anxiety varies not only with the level of an actor's motivation to convey a specific desired image, but also with the actor's perceptions of his or her ability to do so successfully. In order to assess accurately an actor's perceptions of ability level in this social situation, children should have knowledge of the actor's actual ability level based on past performance and the presumed linkage between the actor's actual ability and his or her perception of that ability. Combining this knowledge with knowledge of the degree to which the actor is motivated to impress the other interactant should result in varying predictions about the actor's experience of social anxiety. It is likely that older children are more able than younger children to integrate this kind of information and formulate accurate evaluations of an actor in this kind of situation.

Children's understanding of the concept of ability has been studied in several ways (Frieze, 1976; Kun, 1977; Nicholls, 1978, 1979; Shaklee, 1976; Stipek, 1981; Stipek & Hoffman, 1980). Most of these studies are concerned with tracing the development of children's perceptions and predictions of their own and other's behavior on school performance tasks. Using the model of causal attribution of success and failure introduced by Weiner, Frieze, Kukla, Reed, Rest, and Rosenbaum (1971), researchers have focused on children's causal explanations of performance based on the dimensions of locus of control and stability (e.g., Frieze, 1976; Nicholls, 1978, 1979; Stipek & Hoffman, 1980). According to the Weiner et al. model, causal attributions of one's performance outcome (success/failure) depend on information about one's past performance on related tasks (consistency) and others' performance on the task (consensus). Following a successful or unsuccessful performance, one is then likely to use this information to evaluate one's performance attributing it to some internal factor (ability or effort) or some external factor (task difficulty or luck). The conclusion one draws has implications for one's expectations about future performance outcomes. Experimentally, in rating hypothetical actors, observers used information about the actor's consistency over time on related tasks as well as knowledge of others' performance on the task. For example, observers attributed

high ability or effort to a successful actor when others were described as failing the task. Also, subjects attributed luck to a successful actor who had failed on previous trials.

Similar studies have been conducted with children (e.g., Frieze, 1976; Ruble, Feldman, & Boggiano, 1976; Weiner & Peter, 1973), in which they were presented with descriptions depicting a successful or unsuccessful actor along with information about the actor's past performance, the performance of others, and the actor's incentive to do well (i.e., task importance). In the Frieze (1976) study children in grades 4 through 12 were given such a story and asked to rate the sufficiency of each of four factors (ability, luck, task difficulty, and effort) as causal explanations for the actors' outcome (success or failure). The results showed that all children made fairly consistent attributions in line with the Weiner et al. model. For example, outcomes consistent with past performance were attributed to stable causes (ability and task difficulty), while inconsistent outcomes were attributed to unstable causes (luck and effort).

While this provides support for the notion that young children (at least fourth graders) are adept at using information about past performance as a guide in rating the sufficiency of various possible causal factors (see also Shultz et al., 1975), the results do not go unqualified.

The Frieze (1976) study also indicated that older children were more consistent than younger children in their judgments, varying them on the basis of past performance as well as the importance of the task (actor's incentive). For example, when the incentive was low, older children attributed an actor's success to effort and an actor's failure to task difficulty. Furthermore, older children also made more use of consensus information (others' performances) when explaining the actor's outcome.

Evidence from these studies provides some support to the idea of a progression throughout childhood of the ability to utilize various sources of information to arrive at a sophisticated level of social inference. Presumably, only children with the relatively sophisticated information-processing skills as described above will be able to accurately weight and integrate information about an actor's past performance and incentive to impress another in self-presentation situations.

A study by Kun, Parsons, and Ruble (1974) provides evidence consistent with the above, but approaches children's ability to make attributions from a slightly different perspective. While children in the Frieze (1976) study were presented with information about the success or failure of a hypothetical actor, Kun et al. provided children with information about an actor's past performance and current effort and asked them to predict the most likely

outcome. The results indicate that children as young as six do use information about effort and ability in predicting another's outcome, reflecting, perhaps, some evidence for decentering at this age. However, the 6-year-olds failed to recognize the multiplicative nature of effort and ability, but rather, for example, predicted success when either the actor demonstrated great effort or had high ability or both. Older children (8- and 10-year-olds), on the other hand, used both effort and ability information, recognizing their multiplicative nature in producing outcomes, for example, predicting greatest likelihood of success when both effort and ability were substantial, but less likelihood of success when either ability or effort was insubstantial (Kun, Parsons, & Ruble, 1974).

In addition to the above finding, Kun et al. found that subjects over 8 years of age depended more and more on effort information in making their predictions, weighting it more heavily than information about past performance. Consistent with this result are the findings of Weiner and Peter (1973), who also noted an increasing preference for effort information with age. Perhaps this growing reliance on effort in predictions of achievement outcome represents an increasing awareness of the relationship between effort and ability; that is, ability is static and finite whereas effort can vary and have a stronger mediating effect on predictions of success. It appears that recognition of this relationship increases with age (Nicholls, 1978).

Children not only vary in their understanding and use of ability and effort information, but also generally differ in the predictions of successful or unsuccessful outcomes (Nicholls, 1978, 1979; Stipek & Hoffman, 1980). Evidence suggests that younger children are more likely than older children to predict higher chances for success for themselves, even whey they have had a history of failure (see also Parsons & Ruble, 1977; Shaklee & Tucker, 1979). This finding has been interpreted as supporting the notion that younger children (preschoolers) lack the cognitive skills necessary to assess accurately information about past performance and use this information to predict future outcomes (Parsons & Ruble, 1977). By around age 8, children do attain the necessary cognitive skills to make "accurate" predictions based on this kind of information. Interpretation of this progression as an achievement in cognitive understanding has not gone unchallenged, however. Stipek and Hoffman (1980) reproduced the finding that young children have "overly optimistic expectations of success," but also demonstrated that these same young children do use information about hypothetical others' past performance to reasonably predict the others' outcomes. They suggest that, as a result, children as young as 3 can and do have the ability to make outcome predictions for others, but may have what Piaget (1954) discussed as an exaggerated view of their own self-efficacy.

It is important to note that, while the above research on children's performance-related judgments is useful in assessing their understanding of the performance of actors in self-presentation, the information provided about an actor's past performance (his or her ability) references somewhat different situations. As discussed earlier, the degree of social anxiety experienced by an actor is a product of the actor's motivation to impress an evaluative audience and the actor's perceived ability to do so. The most important dependent measure here is children's judgments of a hypothetical actor's experience of social anxiety. It was expected that younger children would be more likely than older children to utilize information about the actor's past performance alone while older children would be more able to recognize the interaction between past performance and degree of motivation when evaluating the actor's experience. Along with judgments of the actor's experience, children were asked to predict the actor's probability of successfully achieving his or her goal. While it is relevant to these issues, research on performance-related judgments have not used settings where performance is directly related to obtaining a desired interaction goal, but rather focus almost exclusively on performance of skill and academic tasks. While performance evaluation is implicit, it is not treated as a central factor. With regard to the current study, the presence of

an evaluative audience is central. Hence, the notion of performance here is somewhat different than in the research discussed above.

It was thought, however, that interesting age differences would emerge in children's judgments of social anxiety in others across the two types of social anxiety situations discussed earlier. Recall that the interaction/contingent scenario involves an actor whose behavior is for the most part unplanned and the result of responses exchanged with a significant other. Conceptually distinct is the audience/noncontingent scenario in which the actor's behavior is for the most part planned and not the result of spontaneous exchanges during interaction. It is possible that children prior to age 8 rather than older children will react differently to each of these situations with regard to their use of past performance or ability information. It might be the case that younger children will be less accurate in judging the social anxiety experience of actor's in the interaction than in the performance situation. For example, for younger children, knowledge of past performance in social interactions might be less precise and more variable than knowledge of past performance on some less social, script-determined ability. As a result, younger children might judge actors in contingent situations as more likely to be successful than in noncontingent situations when the actor was unsuccessful in the past. This could be

due in part to young children's evaluations of others in social settings which appear to reflect reactions as though they themselves were the actor (Darby, 1980). In the performance situation, where ability information about a performance on a more concrete skill is given, younger children should perhaps show a more accurate understanding of past performances and their impact on success or failure in others.

A completely accurate assessment of an actor's social anxiety experience involves not only consideration of past performance information, but also recognition that the actor has a particular perception of that ability. It is not the level of ability alone, but the actor's perception of that ability that interacts with motivation to potentially produce social anxiety. Beyond processing information presented about an actor's motivation and ability, children were tested as to how effectively they took the role of the actor to determine that actor's responses to the situation. From the previous discussion of role-taking, it was presumed that younger children would be less able than older children to infer the actor's self-perception of ability to convey the desired impression in the situation.

The nature of the role-taking task above is of the one-step variety, i.e., the observer is able or unable to take the role of the actor. Observers of a self-presentation situation, however, must move beyond this one-step inference

process to a two-step process, recognizing not only the actor's perspective, but the other story characters' perspectives as well. For example, an actor who is motivated to impress another but doubts his or her ability to do so is not only thinking of these dimensions, but also the thinking (or potential evaluations) of the others. In order to assess another's social anxiety experience in this case, an observer would need to recognize that the actor is thinking not just of him or herself but also what the other may be thinking of him or her. The observer who recognizes these processes would be demonstrating an understanding of the recursive nature of thinking. This understanding appears to increase with age (DeVries, 1970; Feffer, 1970; Flavell, 1968, 1979, 1981; Miller, Kessel, & Flavell, 1970; Selman, 1973; Selman & Byrne, 1974).

From the perspective of the child as perceiver of his or her own thoughts, the role-taking ability involved in "thinking about thinking" is described as developing through four levels (Flavell, 1968; Shantz, 1975). At the first level (by age 6), children can infer that others may have different thoughts from their own. Next, children (around age 8 or 9) become aware that others do have different thoughts. Next, children (by at 10 or 11) become aware of others' thoughts, while at the same time considering what others are thinking the child is thinking. Finally, children (12 through adolescence) recognize the potentially

endless recursion to interpersonal thinking and make reasonably accurate assessments of the interrelationships among the perspectives of a number of others in relation to their own (Shantz, 1975).

From the perspective of the child as perceiver of another in interaction (i.e., the child not as interactant, but observer), the same developmental trend emerges (Miller, Kessel, & Flavell, 1970). In the Miller et al. study, children from first to sixth grade were shown cartoons depicting an actor (a) thinking about two people, (b) thinking about two people talking, (c) thinking about the thinking of another person, and (d) thinking about the thinking of another person thinking about the actor. (Analysis revealed this series to reflect increasing difficulty.) Children were asked to describe what the actor was doing. The results indicated that all children understood the processes in the first cartoon. However, it was not until fourth grade that children understood the second cartoon, with 75% of fourth graders understanding it. Fifth and sixth graders were able to understand the reasoning in the third cartoon, but experienced some difficulty with it. There was no evidence in the grades sampled of understanding of the fourth cartoon. Miller et al. interpreted their results as providing further evidence for the development of this role-taking skill in conjunction with other, more typically tested role-taking abilities.

With regard to children's perceptions of an actor in a social anxiety situation, it was considered likely, in line with the above developmental trend, to expect that younger children would be less likely than older children to recognize the recursive nature of thinking. As a result, their evaluations of an actor's social anxiety experience would not be as related to measures of the degree to which they understand the actor's thinking in the situation. Conversely, older children's evaluation of social anxiety would be directly related to measures of their ability to understand the nature of recursive thought processes.

Children's ability to take the perspective of another and make inferences about the others' thoughts, feelings, and desires is related in important ways to their skills in interpersonal functioning (Marsh, Felicisima, & Barenboim, 1981; Spivack & Shure, 1976; Spivack, Platt, & Shure, 1976). Interpersonal functioning includes a number of related interpersonal skills such as a child's understanding of social processes (e.g., his or her understanding of other's perceptions in social settings, his or her ability to recognize others' goals in interaction and how they may conflict, how he or she understands interpersonal problem-solving, and how effective he or she is in pursuing and achieving interaction goals).

It has been suggested that the ability to make accurate inferences about others' perspectives is fundamental to

effective interpersonal functioning (Afflect, 1975; Batchelor, 1975). Research has supported this contention, showing a direct relationship between social perspective-taking ability and interpersonal problem-solving (Marsh et al., 1981; Spivack et al., 1976). In a recent study of this relationship, Marsh et al. (1981) tested eighth graders on their perspective-taking ability and problem-solving skills. She was interested in how these two social-cognitive abilities related to one another and to children's social behavior. Subjects were rated on the degree to which they could (1) take the perspective of various actors in an ambiguous social setting (Peffer's (1970) Role-Taking Task), (2) assess the affect of a story character, (3) predict a story protagonist's successful attainment of his or her interaction goal, and (4) analyze components of an interpersonal problem-solving task--what is the problem, what might the story character do, what the character feels, etc. Then children rated themselves and were rated by teachers on their level of interpersonal problem-solving ability reflected in responses to measures of the child's own behavior. As a result, two dimensions of perspective-taking (social and affective) were assessed along with two types of problem-solving tasks and measures of the subject's own ability.

The results showed a strong and direct relationship between perspective-taking and interpersonal problem-

solving. In addition, although there were differences depending on whether the child or teacher was rating the behavior, there was evidence of a relationship between children's levels of perspective-taking and interpersonal problem-solving and ratings of actual problem-solving behavior. It appears that proficiency in social inference tasks reflects a similar proficiency in evaluating others' interpersonal problem-solving as well as one's own. Because these results are based on only one age group of children, it is not possible to determine a clear developmental progression in these social-cognitive skills. However, their conceptual linkage makes it reasonable to suspect that social perspective-taking and interpersonal problem-solving ability may develop concurrently. Furthermore, proposing a parallel developmental progression reflects the approach of Spivack and Shure (1976), who have developed a program for helping improve children's interpersonal functioning generally. Their program involves directly training maladjusted children in the use of social inference skills, commensurate with a child's level of social-cognitive understanding, in order to improve their social functioning (Spivack & Shure, 1976).

As a result, analyzing and solving problems are integral interpersonal skills that emerge and become increasingly sophisticated throughout childhood. Social competence seems to directly imply the social-cognitive perspective-

taking ability as described above. Children who accurately assess the degree to which another may experience social anxiety would be socially competent in this way, i.e., by recognizing that an interpersonal problem exists for an actor under high social anxiety conditions, why it exists, what the actor must or is most likely considering in order to solve the problem, and expectations of the interaction outcomes.

#### Children and self-presentation

As defined earlier, self-presentation represents an actor's conscious or unconscious attempts to convey a self-relevant image to real or imagined audiences. Social anxiety has been defined as the aversive experience resulting from an actor's perception that he or she is unlikely to achieve a self-presentational goal. It is expected that children of different ages will differ in the manner and degree to which they understand the phenomenon of social anxiety in others. Their understanding of the relevant variables involved in creating social anxiety should reflect related developmental processes. First, their understanding should reflect their level of social-cognitive development (e.g., taking the actor's perspective, including recognizing the actor's goals in the interaction, understanding the interaction of the actor's level of ability with the actor's motivation, making inferences about

the psychological causes of behavior, and making inferences about the actor's thoughts and perceptions.)

Second, children's understanding of social anxiety should be related to their level of self-understanding (e.g., recognizing yourself as affecting and being affected by the impressions others hold toward you, understanding the potential divergence between private covert aspects of self and public behavior). From the perspective of theoretical writing on the nature of the self, this development of self-understanding closely resembles the notion of "empirical self" (James, 1890/1950). The empirical self is generally defined as one's understanding of one's self as the object of other's thoughts and action, including recognition of others' impressions of self. It is the self-as-known. The complementary dimension of self, according to James (1890/1950), is the "I," or one's sense of self as an existing, volitional being. It is the self-as-knower. There is growing evidence to suggest, as described originally by Mead (1934), that the "I" or pure self develops first followed by the "me" or empirical self (Broughton, 1978; Damon & Hart, 1982; Guardo & Bohan, 1971; Selman, 1980). Through social experience, children grow to understand themselves and the relationship between themselves and their social environment, recognizing situations that may heighten self-presentational concerns.

Selman (1980) investigated the changing nature of self-understanding by presenting children from kindergarten through sixth grade with stories requiring children to reflect on the thoughts and behavior of the characters. The main character is a child who has lost his puppy and tells a friend that he wishes never to see another puppy. The friend is then shown passing a pet store with only two puppies left and knowing of the main character's upcoming birthday. Children responded to questions about what the friend should do followed by probes about the psychological perspectives of the characters and the children's knowledge of self generally (e.g., "Can you ever fool yourself into thinking that you feel one way when you really feel another?").

Selman found evidence for five stages of children's self-awareness and understanding. Initially, children describe the nature of self in terms of physicalistic dimensions, showing no understanding of the difference between internal psychological experience and external behavior. The child at this stage is a nonreflective existential behaver. At the next stage, around age 8, children recognize the internal-external dimension but still assume a one-to-one correspondence between behavior and feelings. At the third stage (by age 9) children not only recognize the internal-external dimension but also how these may not reflect the same experience, i.e., knowing that behavior can be at odds

with feelings. In the fourth level (early adolescence) young people become aware of what Selman describes as the self's own self-awareness and discusses this age as one of increasing self-consciousness and attempts to monitor the self-experience. Finally, in level five (middle to late adolescence) individuals can handle often disturbing and contradictory self-views by developing the idea of different levels of consciousness, relegating conflicting self-images to different places on a hierarchy from conscious to less conscious aspects of self (Selman, 1980).

Very similar views of the development of self-understanding have emerged in other investigations (Broughton, 1978; Guardo & Bohan, 1971; Keller, Ford, & Meacham, 1978). The fundamental change common in such studies and of importance for the current study is the emergence sometime during middle childhood of a self that is capable of distinguishing between inner psychological experience and outer behavior. Specifically, children in whom this kind of self has emerged should be more aware of the pressures accompanying social behavior, i.e., the presence often of an evaluative audience that motivates an individual to present him or herself to the audience so as to create a desired impression. The child at this stage would recognize that he or she and other people can monitor their thoughts and at one extreme, conscious deception becomes a possibility (Damon & Hart, 1982). (Note that the

possibility of conscious deception does not mean that this is the goal of most self-presentational behavior (Schlenker, 1980).) As a result, children at this age and later should be better able to analyze others' behavior in terms of others' self-presentational goals, and it is likely they would appreciate the variables affecting the experience of social anxiety.

As mentioned earlier, there are primarily three related developmental processes involved in children's understanding of self-presentational concerns in others. The first two are the child's level of social cognitive development and the level of children's self-understanding. The third is the process of integrating social experience and constructing social scripts. The development of social understanding from the approach of script theory is gaining momentum (Nelson, 1981). This approach, based on work in social psychology (Langer, 1978) and theoretical writing on symbolic interactionism (Meltzer et al., 1975), conceives of behavior in a current situation as following learned scripts from experience in similar situations in the past. Persons recognize cues in a current setting that engage scripts that then direct their behavior.

Developmental work using the script approach typically involves presenting children of different ages with labels (cues) for a variety of different situations, for example, eating at a restaurant (Nelson & Gruendel, 1979). By

analyzing the content of children's responses, it is possible to assess the degree to which children are familiar with a particular type of behavioral setting as well as how their schematic representations of various settings differ across ages. For example, relevant elements of a script include temporal ordering of events, causal linkages between them, and so on.

Script knowledge develops from a variety of sources, including the structuring of events by parents (Bruner, 1975) as well as television, films, and observation and interaction with peers (Nelson, 1981). With experience, children become increasingly able to abstract knowledge from particular situations and apply this to more general and inclusive classes of situations. For example, a preschooler's script for eating at a restaurant will be likely to reflect a particular eating experience, for example, "going to MacDonald's," while the scripts of children in the third or fourth grade would be more likely to reflect general restaurant-eating behaviors, for example, ordering a meal, eating, paying for it, etc..

It has been suggested that when an individual encounters a novel situation, one for which no script exists, he or she will engage in a greater amount of conscious processing of information, attending to relevant elements in the new situation (Langer, 1978). Much the same phenomenon has been discussed in terms of children's reactions to novel,

unscripted interaction situations (Nelson, 1981). In children, the response to the situation may involve reverting to an egocentric perspective (evidenced by the use, e.g., of "inner speech"), disregarding the other interactant's perspective, and displaying a variety of behaviors unrelated to the interaction (Nelson, 1981). Presumably, as these children encounter more and varied social situations, their ability to apply abstracted script knowledge will increase.

It is likely that children's acquisition of scripts related to social anxiety and self-presentation situations will progress with age from initial variable reactions to these situations to application of scripted knowledge abstracted from social experience. Typical responses to social anxiety, short of actually withdrawing from the situation, include averting one's eyes, talking less, and feeling anxious. To the degree that older rather than younger children have more established scripts about social anxiety situations, their responses to items concerning an actor in such a situation should be more accurate and consistent. On the other hand, younger children's responses to such items should be less accurate and more variable, indicating a lack of any abstracted script knowledge with regard to social anxiety situations.

In addition, it is possible that children's use of script knowledge in analyzing social anxiety in others may

represent at least some degree of understanding of scripts for self-presentational concerns in general. If this is the case, this understanding should develop concurrently with their self-understanding as it relates to social competence and social behavior as described earlier.

There is no direct research on the development of scripted knowledge of self-presentational behavior across a number of settings. Darby and Schlenker (1982a), in a study of children's understanding of apologies, did obtain results suggesting that children as young as kindergarten do recognize the functions apologies serve for actors who have committed a transgression. For example, they rated an actor who apologized as more forgiveable than an actor who did not. They also recognized the influence of the degree of the actor's responsibility for the incident by rating an actor, say, with high versus low responsibility as more deserving of punishment.

It is difficult to generalize this evidence for script knowledge concerning apologies to other types of self-presentational situations. It may be for example, that being in situations calling for apologies is a common occurrence for even very young children and being directed by parents to apologize for a number of transgressions enables children to learn the ins and outs of this script fairly quickly. It is worth speculating that social anxiety situations, though inevitably occurring during the early

childhood years, may be less common. As a result, a longer period for the development of scripts relevant to these situations was presumed, especially with regard to children's appreciation of the dimensions (motivation and ability) that are postulated to antecede this experience.

#### Anxiety and children

In attempting to assess the development of children's understanding of social anxiety, it is important to discuss the scope and nature of psychological investigations of anxiety in childhood. There are unfortunately no studies on the development of children's understanding of anxiety in general and social anxiety in particular. There is, however, a fairly large amount of work on childhood anxiety from the perspectives of clinicians and educators which has theoretical importance for the current study. It appears from these perspectives that a major underlying process in the kind of anxiety experiences of interest here is self-confirmation through revealing aspects of the self to significant others in real or imagined interaction. The degree to which someone is consciously or unconsciously apprehensive about self-confirmation seems to be directly related to experiencing anxiety in one form or another. (It is important to note that there are anxiety experiences unrelated to the process of self-confirmation, and these experiences, such as fear of lightening, are not included in the present study.)

From the perspective of clinical psychology and child psychiatry, anxiety is most often viewed as psychological distress resulting from unresolved developmental conflicts (Shaw, 1978). Developmental conflicts are viewed in terms of Freudian psychodynamics in which children are confronted with progressive conflicts between internal psychological and biological needs and external pressures from primarily parents. These conflicts vary in substance from those surrounding oral and anal needs to those involving sexual identification with parents. Presumably, a mature adult personality is formed by successful resolution of these conflicts. The child's ego develops through this process of conflict and conflict resolution, forming effective mechanisms to deal with conflicts arising from the clash between internal wishes and needs and external or societal constraints. These defense mechanisms in most individuals represent effective strategies for dealing with conflict, but for persons less sophisticated in resolving developmental conflicts, the defense mechanisms can become exaggerated and produce symptoms associated with neurotic reactions. For example, an acute depressive neurosis in childhood usually represents a developmental failure in the child's ability to overcome a severe trauma (e.g., loss of a parent) and is evidenced by loss of self-esteem and withdrawal from social interaction (Shaw, 1978). In this case, the process of self-confirmation is stunted by an

apprehension of interaction based on fear of reliving the trauma.

In many ways the self and its social development are reflected in work in childhood psychopathology dealing with psychoneurotic disorders in general and anxiety and depressive reactions in particular (Shaw, 1978). For example, the self may experience anxiety resulting from ineffective and unrewarding social interactions with significant others and, if the conflict goes unresolved, the self may construct a chronic depressive neurosis to shield itself from future trauma. A chronically depressed child is, in a sense, one whose self has not had a history of successful interaction and self-confirmation. This child has resolved his or her anxiety through withdrawal from social interaction in much the same way as an individual experiencing transient social anxiety may seek to withdraw from the interaction. The role of the self in both pathological and nonpathological anxiety experiences seems to be preeminent.

Given the critical role of the self and self-understanding in the experience of anxiety, it is conceivable that an individual's level of social-cognitive development and self-understanding would relate directly to the individual's understanding of anxiety in others. Although there is no work in the clinical literature on children's perceptions of anxiety in others, it was presumed

that, if a child is fairly sophisticated in his or her understanding of the self in social settings, then he or she would perhaps more readily recognize the experience of anxiety in others.

Measures of childhood anxiety almost invariably include items related to children's reactions to social situations (Magnusson & Ekehammar, 1975; Penny & McCann, 1964; Sarason, Davidson, Lighthall, Waite, & Ruebush, 1960; Scherer & Nakamura, 1968). Recall that Magnusson and Ekehammar, in a dimensional analysis of their Inventory of Reactions to Situations, found two types of situations that directly involve people's reactions to social situations: threat of punishment and ego threat. These situations vault the self and the process of self-confirmation to prominence under the prospects of revealing self-relevant information to evaluative others. In a study of the scope and nature of children's fears, Miller, Barrett, and Hampe (1972) factor analyzed the responses of children aged 6 to 16 on the Louisville Fear Survey (Scherer & Nakamura, 1968). They found three factors: (1) fear of physical injury, (2) fear of natural and supernatural dangers, such as storms and darkness, and (3) psychic stress, including fear of being criticized, making mistakes, social events, making others angry, and performing for others (Miller et al., 1972). The dimension of psychic stress again points to the salience of self-presentational concerns and their relation to the

anxiety experience. Also, while fear of natural and supernatural dangers diminishes with age, fear of physical injury and psychic distress appear early and remain anxiety-provoking throughout childhood and adolescence.

Along with psychologists, educators have shown great interest in childhood anxiety (see, e.g., Wade, 1981). The focus of research in educational settings has primarily been on the relationship between levels of state anxiety and children's academic performance. Typically in these studies, a scale is administered to assess children's levels of test anxiety (e.g., the Test Anxiety Scale for Children, Sarason et al., 1958) and subsequent measures of academic attainment are taken (e.g., Gaudry & Fitzgerald, 1971; Spielberger, 1962). The results of such studies suggest that the effect of anxiety, particularly test anxiety, is somewhat variable, showing some children high on test anxiety scoring higher on tests, with other children high on test anxiety scoring lower on performance (Gaudry & Fitzgerald, 1971). In a recent study, Wade (1981) combined measures of test anxiety with measures of a student's ability and achievement motivation and looked at their effects on performance. The results indicated the complex way in which anxiety interacts with these other factors to affect performance, showing, for example, higher levels of attainment for highly anxious, motivated, and able students than for highly anxious, low motivated, and highly able

students (Wade, 1981). The work on performance anxiety is relevant to the extent the individual is implicitly confronted with evaluation from another but limited by not focusing on the evaluative nature of the performance as a precursor to the anxiety experience. Furthermore, no research has directly investigated possible developmental trends in children's understanding of the self-presentational issues involved in social anxiety.

Taken together, work on childhood anxiety from both the clinical and nonclinical perspectives has relevance for the current study because of the implicit reference to social psychological processes involved in social anxiety. With regard to conceptualizing social anxiety, these perspectives at least give credence to the importance of the evaluative nature of the social environment in producing anxiety experiences. Also, these perspectives point to the usefulness of postulating processes of self-presentation in evaluating the anxiety experience.

#### Overview and hypotheses

The purpose of the present research was to investigate the nature and development of children's understanding of social anxiety in others. Presumably, this understanding advances through stages during childhood represented by qualitatively different knowledge systems or schemas about the role of the self in social interaction. Specifically, a

major goal was to uncover the different schemas used by children of different ages in evaluating actors in situations that inherently involve self-presentational concerns, in this case, concerns revolving around the experience of social anxiety.

In order to achieve these goals, definitions and propositions dealing with self-presentation and social anxiety have been used to conceptually position the self and processes of self-understanding squarely in the focus of social interaction. There are many instances in which individuals feel insecure and anxious about the portent of projecting self-relevant images to others. The aversive state associated with this low assessment of one's expectations of a successful self-presentation is at the heart of social anxiety.

Children from the second, fourth, and seventh grades participated in the present study by analyzing stories involving actors in two types of social situations. The actors were shown with varying degrees of motivation to impress an audience and varying levels of ability to do so. They were depicted in both contingent and noncontingent interactions (making a friend and acting in a play). Children were asked to judge each story character's experience, for example, assessing how nervous, worried, shy, and uneasy the character was and how likely he or she was to act awkwardly, avoid eye contact, and have trouble communicating.

Based on the theories and research discussed heretofore, it was predicted that

a. A story character presented as being highly motivated to impress an audience and as low in ability to do so would be rated as most socially anxious (nervous, worried, uneasy, and shy). The character rated least socially anxious would be one who was low in motivation and high in ability. If subjects accurately track the experience of social anxiety in others, interactions between motivation and ability would be produced in line with propositions made by the model.

b. Highly motivated actors with low outcome expectancies would be rated as more anxious in the noncontingent versus contingent interaction setting. This would be due to the increased concerns over the evaluations of a larger audience and the presumed novelty of these situations for many school-age children.

c. Due to older children's preference for effort information in ascribing causes for success or failure and younger children's preference for past performance information, older children, who rate an actor as socially anxious, would cite motivation as the major reason for the anxiety, while younger children would cite past performance as the major reason.

d. Older children would be more likely to judge both actor's motivation and perceived expectancies as important determinants of social anxiety, while younger children would

probably cite only one as important. This would be due to older children's recognition of the influence of more than one cause in producing behavior.

e. Older children would predict decreasing successful outcomes for increasing social anxiety in actors. Younger children would be less likely to make this differentiation, predicting actor success for obtaining the self-presentational goal, for the most part, at the same level across all conditions.

f. As ratings of social anxiety increase, children would predict the actor would probably have trouble communicating, maintain less eye contact with the other(s), be more nervous, worried, shy, uneasy, feel less sure about him/herself, and try to do things to get the audience to like him/her.

g. Older children would be more consistent than younger children in their recognition of the relationship between increasing social anxiety and the measures of an actor's behavior and affective responses.

h. Older children would rate insecure actors as more socially anxious and be more pessimistic about the actor's success in the interaction than would younger children.

i. Older children would be more consistent than younger children in responses to items assessing their knowledge of the recursive nature of thinking.

## CHAPTER II METHOD

### Subjects

Subjects were obtained from three elementary schools and two middle schools in Gainesville: Glen Springs Elementary School, Marjorie K. Rawlings Elementary School, P.K. Yonge Laboratory School, Lincoln Middle School, and Fort Clarke Middle School. Names were obtained of children in three grade groups: second grade, fourth grade, and seventh grade. The names were provided by the principals and staff of the schools and informed consents were gathered from parents. Because of concern over possible response bias by nine respondents (5 2nd graders and 4 4th graders), their data was excluded from the study. As a result, data from 202 subjects was used in the study: 93 second graders (40 males, 53 females; average age 7.30), 65 fourth graders (27 males, 38 females; average age 9.41), and 44 seventh graders (22 males, 22 females; average age 12.47).

Procedure

Two vignettes were written, each depicting an actor (Dale or Sandy) in a setting that could cause the actor social anxiety. Each actor was described as a student in the same grade and of the same sex as the subject.

One vignette (see Appendix A) portrays an actor, Dale, in contingent interaction with a classmate with the focus being on making friends with the classmate. As discussed earlier, interaction anxiety is a potential outcome of this kind of situation. Dale is shown waiting after school for the school bus when he/she notices a classmate standing alone. The classmate looks at Dale and says, "Hello." The stage is then set for subjects to assess Dale's possible reactions to the situation.

The second vignette portrays an actor, Sandy, in a noncontingent interaction with the goal of performing in a play before an audience of classmates. Audience anxiety is the possible outcome of this situation. Sandy is shown along with an audience of classmates waiting for the play and his/her performance to begin. At this point subjects are asked to assess Sandy's responses to the setting.

Cross-cutting the contingent/noncontingent classification, the actors are portrayed as having either low or high motivation to impress the other(s). For example, Dale either likes the classmate and wants very much to be friends with him/her (high motivation) or Dale neither

likes nor dislikes the classmate and does not really care whether or not they become friends (low motivation). Likewise, Sandy either wants very much for the classmates to like his/her acting (high motivation) or Sandy does not really care whether his performance is a success or failure (low motivation). In addition to the manipulation of the actor's motivation, the actor is depicted as having either high or low ability to successfully perform in the interaction, i.e., low or high ability to make friends for Dale and low or high ability to act in the play for Sandy. For example, Dale either has been able to make friends easily in the past and thinks he/she can make friends in the current situation (high ability) or has had difficulty making friends in the past, and doubts his/her ability to make friends in this case (low ability). In similar fashion, Sandy is shown with a record of past success acting and confidence about the current performance (high ability) or with a record of past failure at acting and a lack of confidence about the upcoming performance (low ability). By crossing these factors of motivation and ability it was possible to see whether children of different ages related them in predicting an actor's social anxiety in ways proposed by Schlenker and Leary (1982).

Each subject was presented with both the contingent and noncontingent vignettes in counterbalanced order. In both vignettes the same combination of actor motivation and actor

ability was presented. Which combination a particular subject received was determined by random assignment of subjects to conditions prior to the sessions. The 2 X 2 X 2 factorial design, then, had two between-subjects factors (motivation and ability) and one within-subjects factor (type of interaction--contingent/noncontingent).

Subjects participated individually in sessions of approximately 20 minutes in length. Eight experimenters (one male, seven females) were trained in the experimental procedure and each experimenter was randomly assigned names of subjects to interview. The experimenter introduced the task as one involving listening to a couple of short stories, then answering questions about the stories and the people in them. Subjects were made to feel as comfortable as possible and assured that the procedure was in no way a test, with no "right" or "wrong" answers. The experimenter then familiarized the subject with the answering device to be used when responding to questions. This device was constructed using a poster-board and drawing a 10-point scale on it so as to convey an ascending dimension from 0 to 9. During practice with the device, subjects were instructed that pointing to or responding with "0" indicated "no" or "none at all," responding with "1" indicated "slightly" or "just a little bit," and so forth to responding with "9" indicating "yes," "extremely so," or "a great deal." Subjects were asked trial questions in the

form, for example, "Do you like ice cream, and, if so, how much do you like ice cream?" or "Do you like potatoes, and, if so, how much do you like potatoes?" In pretraining, questions were asked until subjects had responded across the full length of the scale, i.e., made responses in the low, medium, and high ranges.

Once subjects were familiar with the answering device and comfortable with the experimental situation, the experimenter read the vignettes to the subject, presenting the order Dale-then-Sandy to half the subjects and the order Sandy-then-Dale to the other half. For each vignette the subject was presented with the introduction plus the motivation/ability combination followed by the "prompt." The prompt in Dale's story was "The classmate looks at Dale and says, 'Hello,'" and in Sandy's story was "Everyone in the audience (all Sandy's classmates) are waiting for the play to begin." After a vignette was read, the experimenter asked the subject if he or she had any questions about the events of the story.

Following the reading of each vignette, the subjects were first asked questions about Dale's or Sandy's goals and expectations with regard to the situation. These manipulation check items asked (1) whether and how much Dale/Sandy wanted the classmate(s) to like him/her, (2) whether and how much Dale wanted to become friends with the classmate or Sandy wanted the classmates to like his/her

acting, (3) whether and the degree to which Dale and Sandy think they will succeed in making friends and acting well, respectively, and (4) whether and the degree to which Dale and Sandy perceived themselves able to make friends and act well, respectively. The subjects' responses to these and all questions were recorded by the experimenter on a protocol for that subject containing information about the subject (sex, age, grade, and school), the vignettes, and the questionnaires.

After obtaining responses to the manipulation check items, the experimenter continued asking questions about whichever vignette had just been read. The questionnaires for both vignettes were matched item-for-item, although the wording was not identical due to the different story contents. For example, the item for assessing the subjects' predictions of the actor's success in the Dale story read, "Do you think Dale will become friends with the other classmate, and if so, how likely is it that they will become friends?", while in the Sandy story the item read, "Do you think the classmates will like Sandy's acting, and if so, how much do you think they will like his/her acting?" In addition to wording differences of the kind this example illustrates, two items were asked following the Dale story that were not asked following the Sandy story, one asking if the subject thought Dale would talk to the classmate and another asking if the subject thought Dale

would smile and be pleasant to the classmate. These behavioral measures were considered pertinent to the content of the Dale story and indicative of the more spontaneous nature of the contingent interaction, while they would not seem naturally occurring in the noncontingent interaction as depicted in the Sandy story.

During pilot-testing with subjects from all three grade levels, the issue of attention-span was raised, given the rather lengthy questionnaires and the inclusion of two stories. The Dale questionnaire contained 25 items and the Sandy questionnaire contained 23 items. It was feared that at some point during the questioning, subjects, particularly younger ones, might forget the content of the story just read, become confused, and lose interest in accurate responding. Although it did not seem to be a glaring problem, the decision was made to stop questioning midway through each questionnaire and to reread that particular story. The stories were short enough so that rereading them did not add any significant time to the session, and hopefully, refreshing the subjects on the story content maintained their interest and accuracy in responding.

The first question asked following the manipulation check items was, "Does Dale/Sandy feel nervous, and if so, how nervous does Dale/Sandy feel?" If a subject responded that Dale/Sandy did feel nervous in the situation, then the subject was asked two additional questions about the reasons

for the actor's nervousness. These additional questions were designed to assess whether the subject thought the major reason for the actor's being nervous was (1) fear of being unable to achieve the interaction goal in the situation (either making friends or performing well in the play) or (2) because the actor was so motivated to achieve the interaction goal. If the subject did not think the actor was nervous (responding with 0) these two questions were omitted.

The remainder of the items dealt with subjects' evaluations of the actor in relation to the events of the story (e.g., does the actor feel uneasy, does the actor feel sure about what he/she is doing, is the actor worried about what the classmate(s) is(are) thinking of him/her?) as well as more global judgments of the actor (e.g., is the actor a shy person, a good or bad person, a happy or sad person, a strong or weak person?). In addition, there were a number of items dealing with behavioral responses the actors could have made to the situations. For example, items asked whether subjects thought the actors would succeed in either making friends or acting well, whether the actors would have trouble communicating with the classmate(s), whether the actors would act awkwardly, fidget or squirm, and whether the actor would maintain or avoid eye-contact with the others. Also, items asked if subjects thought the actors would try to do things to get the classmate(s) to like them,

whether the classmate(s) did indeed like them, and whether the subjects would themselves like them. Finally, subjects were asked how good or bad they were at making friends and at acting.

Once both vignettes and questionnaires had been administered, subjects were asked if they had any questions about the procedures used in the study. At this time, experimenters explained to subjects the nature of the research in terms understandable to children, and experimenters asked subjects questions about their own experiences in social situations such as making friends and acting in a play. The responses to these questions were not obtained for the sake of analysis, but rather to disengage the subject from the experimental session. Subjects were asked not to discuss the research with any of their classmates. Finally, they were thanked for their assistance in the research and taken back to their classroom.

### CHAPTER III RESULTS

Before sending experimenters into the field, the protocols used in the study were pilot tested on five children from each of the three grades (2nd, 4th, and 7th). From this and from discussions with teachers of students in these grades, it was determined that the stories used and the questionnaires were appropriate to the ages of children involved.

Data were gathered on characteristics of the subjects (including sex, age, grade, and school attended) and each subject's responses to the two questionnaires (one following the contingent vignette, the other following the noncontingent vignette). Initial analysis revealed no consistent effects of sex of subject or school attended and will not be discussed further.

The analyses to follow deal with data gathered in response to the questionnaires following both vignettes. As mentioned, the questionnaires were not identical, with the one following the contingent (Dale) vignette containing two more items than the one following the noncontingent (Sandy) vignette. Because "situation type" is treated as a within-subjects factor, the two additional items from the Dale

questionnaire (numbers 12 and 14) are analyzed separately. Otherwise the items beginning with number 1 from each questionnaire are treated as repeated measures, for example, Dale 1 = Sandy 1, ..., Dale 13 = Sandy 12, Dale 15 = Sandy 13, ..., Dale 25 = Sandy 23. Subjects responses to these questionnaires were analyzed as they were affected by grade of subject, level of actor's motivation and level of the actor's ability. As a result, the reported analyses deal with a 3 (second/fourth/seventh grade) X 2 (low/high motivation) X 2 (low/high ability) X 2 (contingent/noncontingent interaction) factorial design, with grade, motivation, and ability as between-subjects factors. Given unequal cell sizes, an unweighted-means analysis of variance was employed unless otherwise specified.<sup>1</sup>

#### Manipulation Checks

##### Motivation Manipulation

The first question asked following the reading of each vignette was "Does Dale/Sandy want the classmate(s) to like him/her, and if so, how much does Dale/Sandy want the classmate to like him/her?" An analysis of variance on this item revealed a main effect of motivation,  $F(1,188) = 100.07$ ,  $p < .001$ , indicating that subjects rated the actors in the low motivation condition as significantly less

<sup>1</sup> The number of subjects serving in each cell of the design may be found in Appendix B.

wanting to be liked ( $M = 6.10$ ) than actors in the high motivation condition ( $M = 8.51$ ). Thus, the manipulation produced the desired effect. While this is so, it is important to note the range of means produced by the manipulation (6.10 to 8.51). This range clearly indicates that even in the low motivation condition, subjects rated actors as somewhat motivated to impress the other(s) in the story. The fact that there was no clear differentiation between low and high motivation suggests that the observed relationship between motivation and ability is probably attenuated.<sup>2</sup>

Further results on this item included a significant main effect of ability,  $F(1,188) = 7.20$ ,  $p < .008$ , qualified by significant interactions between motivation and ability ( $F(1,188) = 4.66$ ,  $p < .04$ ) and situation and ability ( $F(1,188) = 4.18$ ,  $p < .05$ ). The main effect showed low ability actors as less desirous of liking than high ability actors ( $M$ 's = 6.98 and 7.81, respectively). This effect of ability, however, seemed to be evident only in the low motivation condition ( $M$ 's in this condition = 6.68 and 5.51, respectively, for high and low ability;  $M$ 's in high motivation condition = 8.58 and 8.45, respectively for high and low ability). In addition, the effect produced by

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<sup>2</sup> As described throughout these results, main effects, rather than interactions, are produced involving these factors. While the main effects are consistent with the predicted relationship, the restricted range of manipulation means produced few indications of the multiplicative relationship.

ability appeared to reside in the performance (Sandy or noncontingent) situation such that high ability actors in this situation were seen as wanting to be liked more than low ability actors ( $M's = 7.99$  and  $6.94$ , respectively). Furthermore, given high ability, an actor in the performance situation was rated as more desirous of liking than a similarly able actor in the friendship (Dale or contingent) situation ( $M's = 7.99$  and  $7.28$ , respectively).

A closely related item asked subjects to rate the degree to which Dale wanted to become friends with the classmate and Sandy wanted the classmates to like his/her acting. This was a measure of how motivated subjects felt the actors were to obtain their specific interaction goals. The results were strikingly similar to the previous item, showing a significant main effect for motivation,  $F (1,188) = 100.87$ ,  $p < .001$ , with highly motivated actors rated as more wanting to achieve their interaction goals than low motivated actors ( $M's = 8.38$  and  $5.85$ , respectively). Also, as was the case in the prior item a significant main effect of ability emerged  $F (1,188) = 11.49$ ,  $p < .001$ , such that more able actors were perceived as more highly motivated ( $M's = 7.55$  and  $6.69$ , respectively). Likewise, actors in the performance versus friendship situation were rated as more motivated (main effect of situation,  $F (1,188) = 5.31$ ,  $p < .03$ ;  $M's = 7.44$  and  $6.90$ , respectively). This effect was qualified by a significant situation  $\times$  grade

interaction,  $F(1,188) = 5.40$ ,  $p < .006$ , showing that actors in the performance versus friendship story were seen as more motivated, but only as rated by second graders (simple main effect of situation at second grade,  $F(1,188) = 18.24$ ,  $p < .05$ ; see Table 1).

TABLE 1

Subjects' Ratings of Actors' Motivation to Achieve Their Interaction Goals as a Function of Grade and Situation

| Grade   | Situation  |             |
|---------|------------|-------------|
|         | Friendship | Performance |
| Second  | 6.60ab     | 7.86ac      |
| Fourth  | 7.46b      | 7.32        |
| Seventh | 6.59       | 6.87c       |

Note. Means sharing a common subscript differ by  $p < .05$ .

#### Ability Manipulation

Subjects were asked to rate (1) the degree to which actors were confident of achieving the goal in the story (making a friend/acting in the play) and (2) how skillful in these situations the actors perceived themselves to be (items 3 and 4). On both items the ability manipulation

produced the desired effect as revealed in a significant ability main effect,  $F(1,188) = 86.46$ ,  $p < .0001$ , and  $F(1,188) = 242.09$ ,  $p < .0001$ , respectively. The means for the first of these items showed that actors portrayed as able were rated as being more confident than less able actors of succeeding in this particular setting ( $M's = 7.07$  and  $4.20$ , respectively). Subjects' ratings of the actors' self-perceptions of general ability (in making friends and acting) varied with the ability manipulation ( $M's = 3.49$ , and  $7.43$ , for low and high ability, respectively). In addition, actors shown to be highly motivated were rated as more confident than less motivated actors shown by a motivation main effect,  $F(1,188) = 14.87$ ,  $p < .0002$  ( $M's = 6.19$  and  $4.94$ , respectively).

#### Analysis of Questionnaire

##### Measures of Anxiety

###### Worry.

Subjects were asked to evaluate how worried the actors were about what the classmate(s) were thinking of him or her. It was expected that the effects of motivation and ability on anxiety would be in line with predictions based on the model. For example, these factors were proposed to interact to affect measures of social anxiety. While no motivation  $\times$  ability interaction was obtained, the results were consistent with predictions in terms of the importance

of motivation and ability in affecting responses and the rank order of means. A motivation main effect was revealed,  $F(1,188) = 10.36, p < .002$ , along with a motivation  $\times$  grade interaction,  $F(2,188) = 4.78, p < .01$  (see Table 2). In line with predictions, the means for the main effect showed highly motivated actors as more worried than less motivated actors. A breakdown of the interaction revealed that highly motivated rather than less motivated actors were rated as more worried by fourth and seventh graders. Also, given high motivation, fourth and seventh graders rated the actor as more worried than did second graders (see Table 2). These grade differences also produced a main effect of grade  $F(2,188) = 5.08, p < .008$ . These results suggests that older children may be more aware of the evaluative nature of situations such as the ones portrayed here.

As expected, the more able actor was rated as less worried than the less able actor ( $F(1,188) = 8.64, p < .004$ ;  $M$ 's for high and low ability are 4.62 and 5.72, respectively).

There was some support obtained, however, for the predicted multiplicative effects of motivation and ability in a significant four-way interaction of situation  $\times$  grade  $\times$  motivation  $\times$  ability,  $F(2,188) = 4.08, p < .02$ . Although a breakdown of this interaction revealed few significant simple effects not evident in the effects discussed so far, the pattern of means suggested that, for example, the

TABLE 2

Subjects' Ratings of How Worried the Actors Were  
as a Function of Grade and Motivation

| Grade   | Motivation |        |         |
|---------|------------|--------|---------|
|         | Low        | High   | Overall |
| Second  | 4.72       | 4.49ab | 4.60    |
| Fourth  | 5.02c      | 6.31ac | 5.65    |
| Seventh | 4.76d      | 6.83bd | 5.84    |
| Overall | 4.83e      | 5.58e  |         |

Note. Means sharing a common subscript differ by  $p < .05$ .

highest rating of worry was made for an actor low in ability and high in motivation, and this seemed to be most pronounced in the performance scenario for all grades and in the friendship scenario for seventh graders (see Table 3). Also in line with the model the least worry was assigned to actors who were highly able but less motivated, with the exception of second graders in the friendship scenario.

Some support was obtained for the speculation that a noncontingent interaction may produce more concern over an audience's evaluation than may be produced by a contingent interaction. A main effect of situation,  $F(1,188) = 13.45$ ,

TABLE 3

Subjects' Ratings of How Worried Actors Were as a Function of Situation, Grade, Motivation, and Ability

|         |     | Friendship/2nd Grade |      | Performance/2nd Grade |        |
|---------|-----|----------------------|------|-----------------------|--------|
|         |     | Motivation           |      | Motivation            |        |
| Ability | Low | High                 | Low  | High                  | High   |
|         | Low | 4.30                 | 3.72 | 5.61                  | 6.48   |
|         |     | Friendship/4th Grade |      | Performance/4th Grade |        |
|         |     | Motivation           |      | Motivation            |        |
| Ability | Low | High                 | Low  | High                  | High   |
|         | Low | 5.47a                | 5.33 | 5.84d                 | 8.07cd |
|         |     | High                 |      | High                  |        |
|         |     | 2.64a                | 6.06 | 5.64                  | 5.89c  |

## Friendship/7th Grade      Performance/7th Grade

| Ability | Motivation |      | Motivation |       |
|---------|------------|------|------------|-------|
|         | Low        | High | Low        | High  |
| Low     | 5.00       | 7.00 | 4.83e      | 7.00e |
| High    | 4.22       | 6.33 | 4.89f      | 7.00f |

Note. Means sharing a common subscript differ by  $p < .05$ .

$p < .0003$ , revealed that actors in the performance story were rated as more worried about what others are thinking of them than are actors in the friendship story ( $M's = 5.73$  and  $4.79$ , for the performance and friendship stories, respectively). A similar finding was obtained for the item asking subjects to assess how "uneasy" the actor felt, with a main effect of situation,  $F (1,188) = 6.47$ ,  $p < .02$ , showing actors in the performance story rated as more uneasy than those in the friendship story ( $M's = 4.87$  and  $4.16$ , respectively).

Uneasiness.

Other results obtained by asking subjects how uneasy they thought the actors felt were very similar to those just discussed. A main effect of motivation,  $F (1,188) = 4.50$ ,  $p < .04$ , highly motivated actors rated as more uneasy than

less motivated actors (see Table 4). Also a grade X motivation interaction,  $F(2,188) = 9.59$ ,  $p < .001$ , showed the effects of motivation emerging for all grades, but for second graders the effect is in the opposite direction than expected. Second graders rated highly motivated actors as less uneasy than less motivated actors, while older children did the opposite (see Table 4). Also as expected fourth and seventh graders rated highly motivated actors as being more uneasy than did second graders. Overall, older children rated the actors as being more uneasy than did younger children as revealed in a grade main effect,  $F(2,188) = 3.64$ ,  $p < .03$ , although pairwise comparisons showed no significant between-group differences (see Table 4).

As before, actors with high ability were seen as less uneasy than actors low in ability ( $F(1,188) = 7.49$ ,  $p < .007$ ;  $M$ 's = 3.99 and 4.92, for high and low ability, respectively).

#### Nervousness.

It was originally thought that the most central measure of the actors' anxiety experience was, "Does Dale/Sandy feel nervous, and, if so, how nervous does Dale/Sandy feel?" The results on this item were consistent with predictions, showing higher motivation increasing the degree of anxiety experienced, but were not affected by ability. A significant grade X motivation interaction,  $F(2,188) = 4.88$ ,  $p < .009$ , revealed that actors with high rather than

TABLE 4

## Subjects' Ratings of How Uneasy the Actors Felt as a Function of Grade and Motivation

| Grade   | Motivation |         |         |
|---------|------------|---------|---------|
|         | Low        | High    | Overall |
| Second  | 4.53c      | 3.47abc | 3.98    |
| Fourth  | 4.03d      | 5.42bd  | 4.72    |
| Seventh | 4.24e      | 6.00ae  | 5.16    |
| Overall | 4.30f      | 4.64f   |         |

Note. Means sharing a common subscript differ by  $p < .05$ .

low motivation were rated as more nervous, but this was the case only for seventh graders ( $F (2,188) = 5.10$ ,  $p < .05$ ; see Table 5). In addition, given high motivation, seventh graders rated actors as significantly more nervous than did second graders ( $F (2,188) = 7.81$ ,  $p < .05$ ). It is interesting that, on this item, only the seventh graders saw more motivated people as suffering more nervousness. Perhaps the older children recognized this relationship while younger children did not. Perhaps younger children had difficulty with the concept of nervousness (although pretesting did not suggest this).

TABLE 5

## Subjects' Ratings of How Nervous Dale/Sandy Felt as a Function of Grade and Motivation

| Grade   | Motivation |        |
|---------|------------|--------|
|         | Low        | High   |
| Second  | 4.63       | 3.67a  |
| Fourth  | 4.54       | 4.86   |
| Seventh | 4.33b      | 6.00ab |

Note. Means sharing a common subscript differ by  $p < .05$ .

Following this measure of anxiety and, if subjects reported the actor as nervous, subjects were asked the degree to which they thought the nervousness was due to fear of being unable to succeed in the situation and the degree to which the nervousness was due to the actor being very highly motivated to succeed.<sup>3</sup> The first item dealing with the actor's ability to succeed, produced a motivation main effect,  $F (1,128) = 7.42$ ,  $p < .009$ , such that high versus

<sup>3</sup> As a result of this procedure of asking the followup questions only if subjects reported the actor as nervous, the results on these items are based on different cell sizes (see Appendix C). Chi-square tests of independence were conducted to make sure no differential deletion of subjects emerged as a result of this procedure and none was found.

low motivation actors were rated as more afraid of failing on the ability dimension ( $M$ 's = 5.68 and 4.64, respectively). It is interesting that the ability factor had no influence on children's responses on this item.

In addition to the effect of motivation on responses to this item, a grade main effect emerged,  $F(2,128) = 6.26$ ,  $p < .003$ . Although pairwise comparison tests revealed no significant intermean differences, the pattern of means suggests that older children rated the actors as more afraid of being unable to succeed than younger children ( $M$ 's = 4.31, 5.26, and 5.92, for second, fourth, and seventh graders, respectively).

On the item measuring the degree to which subjects thought the actor was nervous because of the magnitude of his or her motivation to succeed, a motivation main effect emerged,  $F(1,128) = 9.21$ ,  $p < .003$ . The means showed that highly motivated actors ( $M$ 's = 6.36) were nervous because of the degree of their motivation, more than were less motivated actors ( $M$ 's = 5.14). Also, the nervousness of actors in the friendship story was seen as less the result of the actor's motivation than was the actor's nervousness in the performance story (situation main effect,  $F(1,128) = 8.67$ ,  $p < .004$ ;  $M$ 's = 5.21 and 5.99, for the friendship and performance stories, respectively). These two effects were qualified, however, by a significant interaction of situation X motivation X ability,  $F(1,128) = 4.64$ ,  $p < .04$ .

Breakdown of this interaction revealed that the difference between the friendship and performance stories occurred in the low motivation condition,  $F(1,128) = 8.85, p < .05$ ;  $M$ 's = 4.52 and 5.76, for the friendship and performance stories, respectively. The effects of motivation were evident throughout this three-way interaction, for example, showing more motivated rather than less motivated actors being nervous because of their motivation, regardless of the situation or the actor's ability.

Confidence.

In an additional attempt to measure aspects of the actors anxiety experience, subjects were asked to rate how "sure" they thought the actors perceived themselves to be about what they were doing in the situation. As expected, an ability main effect,  $F(1,188) = 33.28, p < .0001$ , showed subjects rating highly able actors as more sure about what they were doing than less able actors ( $M$ 's = 6.69 and 4.93, respectively). Although ability was also involved in a significant three-way interaction of situation, motivation, and ability ( $F(1,188) = 5.62, p < .02$ ), its effect remained consistent, i.e., regardless of low or high motivation and irrespective of the situation, highly able actors were perceived as being more sure of themselves than less able actors. A breakdown of this interaction yielded some support for the interactive nature of motivation and ability as predicted by the model. Simple main effects of both

motivation and ability showed actors rated as more sure of themselves when either motivation or ability was high and as most sure of themselves when both were high (see Table 6). (Motivation effect at low ability,  $F(1,188) = 6.02$ , at high ability = 5.10; ability effect at low motivation,  $F(1,188) = 27.80$ , at high motivation = 27.35, all  $p$ 's  $< .05$ .)

TABLE 6

Subjects' Ratings of How Sure the Actors Felt about the Situation as Functions of Motivation and Ability

| Motivation |        |        |
|------------|--------|--------|
| Ability    | Low    | High   |
| Low        | 4.59ac | 5.11bc |
| High       | 6.35ad | 7.00bd |

Note. Means sharing a common subscript differ by  $p < .05$ .

An interesting grade  $\times$  motivation interaction was obtained,  $F(2,188) = 4.32$ ,  $p < .02$ , that showed second graders rating highly motivated actors as more sure of themselves than nonmotivated actors (see Table 7). The means reveal that, for older children, the degree of an actor's motivation did not affect how sure the actor felt.

Younger children perhaps understand wanting to do something as implying the confidence to do it.

TABLE 7

Subjects' Ratings of How Sure the Actor Felt about the Situation as a Function of Grade and Motivation

| Grade   | Motivation |       |
|---------|------------|-------|
|         | Low        | High  |
| Second  | 5.02a      | 6.70a |
| Fourth  | 5.62       | 5.72  |
| Seventh | 5.52       | 5.85  |

Note. Means sharing a common subscript differ by  $p < .05$ .

While earlier findings showed actors in the performance situation rated actors as more uneasy and worried than in the friendship situation, subjects here rated actors in the performance story as more sure of themselves than those in the friendship story ( $F (1,188) = 5.77$ ,  $p < .02$ ;  $M$ 's = 6.01 and 5.49, respectively). It could be, as discussed in Chapter I, that feelings of uneasiness and worry may be more pronounced in noncontingent situations due to larger audiences and the novelty of such situations. At the same

time, an actor's confidence may be increased over contingent situations because of the scripted nature of performance situations.

While sureness was conceived to be negatively related to measures of anxiety, correlations between how sure actors were rated and how worried, uneasy, shy, and nervous they were perceived to be show, for the most part, no relationship at all (see Table 8). So while the effects produced are consistent with predictions, the relationship between confidence and aspects of anxiety is not completely clear.

TABLE 8

Correlations Between Measures of Anxiety:  
Overall and Broken Down by Grade

|           |      | Anxiety Measure |        |       |         |
|-----------|------|-----------------|--------|-------|---------|
| Anxiety   |      | Worried         | Uneasy | Shy   | Nervous |
| Measure   |      |                 |        |       | Sure    |
| Worried   | 1.00 | .50*            | .30*   | .38*  | -.03    |
| 2nd Grade | 1.00 | .47*            | .28*   | .33*  | .01     |
| 4th Grade | 1.00 | .51*            | .23    | .24   | -.16    |
| 7th Grade | 1.00 | .64*            | .21    | .59*  | .19     |
| Uneasy    |      | 1.00            | .44*   | .52*  | -.05    |
| 2nd Grade |      | 1.00            | .44*   | .52*  | -.10    |
| 4th Grade |      | 1.00            | .41*   | .47*  | .02     |
| 7th Grade |      | 1.00            | .27    | .50*  | .03     |
| Shy       |      | 1.00            | .38*   | -.22* |         |
| 2nd Grade |      | 1.00            | .39*   | -.26* |         |
| 4th Grade |      | 1.00            | .32*   | -.21  |         |
| 7th Grade |      | 1.00            | .34*   | .01   |         |

|           |      |      |
|-----------|------|------|
| Nervous   | 1.00 | .03  |
| 2nd Grade | 1.00 | -.08 |
| 4th Grade | 1.00 | .04  |
| 7th Grade | 1.00 | .45* |

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Note. Correlations followed by an asterisk are significant at  $p < .05$ .

#### Behavioral Measures

A series of questions was asked dealing with possible behaviors the actors in the stories might enact in response to the situation. Recall that although the wording of these questions varies of necessity across the vignettes, the items were parallel so analyses reported here treated them as repeated measures. For example, the first question in this group for the Dale story is, "Do you think Dale will have trouble thinking of things to say to the classmate, and, if so, how much trouble do you think he/she will have?" For the Sandy story the same question reads, "Do you think Sandy will have trouble remembering what he/she is supposed to say in the play, and, if so, how much trouble do you think he/she will have?"

In rating the degree to which the actor's communication will be impeded in the situation as in the questions above, it was found that more able actors were seen as having less trouble than less able actors,  $F (1,188) = 5.94$ ,  $p < .02$ ;  $M's = 4.19$  and  $5.08$ , respectively). Also, actors in the

performance situation were rated as having less communication problems than actors in the friendship story ( $F (1,188) = 5.08$ ,  $p < .03$ ;  $M's = 4.19$  and  $4.72$ , respectively). As with the findings on actors' confidence, perhaps this lack of communication problems in the performance rather than friendship situations reflects actors' dependence on the scripted nature of the performance scenarios. This is due to the fact that performing in a play requires learning lines and, having prepared, actors should know what to say. In the contingent situation, there are no learned lines and the risk of having trouble thinking of what to say perhaps becomes greater. Following the Dale story, subjects were asked whether and how much they thought Dale would talk to the classmate. Ability and motivation main effects showed a highly able or a highly motivated Dale was more likely to talk and to talk more than was a less able or less motivated Dale ( $F's (1,188) = 18.59$  and  $8.49$ ,  $p's < .005$ , for the ability and motivation factors respectively; high/low ability  $M's = 7.41/5.54$  and high/low motivation  $M's = 7.04/5.82$ ).

Similar findings were obtained on the other Dale question not on the Sandy questionnaire, asking if and how much Dale would smile and be pleasant to the classmate. Again a more able or more motivated Dale was more likely to engage in this behavior (ability main effect,  $F (1,188) = 4.01$ ,  $p < .05$ ; high/low  $M's = 7.15/6.25$ ; motivation main effect,  $F (1,188) = 13.51$ ,  $p < .001$ ; high/low  $M's = 7.41/5.93$ ).

Four other behavior questions asked subjects if and the degree to which they thought Dale or Sandy would, (1) act clumsily, (2) look right at the classmate(s), (3) try to look away from the classmate(s), and (4) fidget or squirm. On each item an ability main effect was obtained showing more able actors as less likely to act clumsily, more likely to look right at the classmate(s), less likely to try and look away, and less likely to fidget or squirm ( $F$ 's (1,188) = 14.51, 16.47, 12.91, and 11.78,  $p$ 's < .001, respectively; see Table 9). In addition to the ability main effect on the question about actors looking right at the classmate(s), a motivation main effect ( $F$  (1,188) = 10.20,  $p$  < .002) showed a highly motivated actor more likely to look at the classmate(s) ( $M$ 's = 5.78 and 4.72, respectively).

Analyses of all the questions about the actors' behavior (except those peculiar to the Dale story) produced consistent grade effects. These showed that older children versus younger children thought the actors would (1) have more trouble communicating, (2) act more clumsily, (3) be less likely to look right at the classmate(s), (4) more likely to look away, and (5) more likely to fidget or squirm ( $F$ 's (2,188) = 6.78, 3.47, 7.47, 15.76, and 11.08, respectively,  $p$ 's < .05; see Table 10). Perhaps older children are more aware than younger children of the evaluative nature of social interaction and the apprehension that can often accompany it.

TABLE 9

Likelihood of Behavioral Responses Actors Could Make  
as a Function of Actors' Ability

| Behaviors            | Ability |       |
|----------------------|---------|-------|
|                      | Low     | High  |
| Act Clumsily         | 4.27a   | 2.95a |
| Look at Classmate(s) | 4.58b   | 5.93b |
| Look away            | 4.31c   | 3.05c |
| Fidget/Squirm        | 4.13d   | 2.93d |

Note. Within each behavior, means sharing a common subscript differ by  $p < .05$ .

A general question was included to assess if and the degree to which subjects thought the actors would "do things" to try and get the classmate(s) to like him/her. Ability and motivation main effects emerged ( $F$ 's (1,188) = 4.82 and 15.94, respectively,  $p$ 's < .03) which showed highly motivated or able actors as more likely to do things to gain a positive evaluation from the audience (low/high ability  $M$ 's = 6.40 and 7.20; low/high motivation  $M$ 's). The motivation main effect was qualified, however, by a situation X motivation interaction ( $F$  (1,188) = 5.48,  $p < .03$ ; see Table 11). The means indicate that in the

TABLE 10

## Likelihood of Actors Engaging in Certain Behaviors as a Function of Grade

| Behaviors             | Grade  |        |         |
|-----------------------|--------|--------|---------|
|                       | Second | Fourth | Seventh |
| Trouble Communicating | 3.88a  | 4.48   | 5.54a   |
| Act Clumsily          | 3.17   | 3.37   | 4.29    |
| Look at Classmate(s)  | 6.01b  | 5.33   | 4.42b   |
| Look Away             | 2.52c  | 3.62   | 4.90c   |
| Fidget/Squirm         | 2.48de | 3.96d  | 4.15e   |

Note. Within each behavior, means sharing a common subscript differ by  $p < .05$ .

performance situation, actors are seen as equally likely to try and obtain favorable audience evaluations regardless of how motivated the actors are. In the friendship situation, however, highly motivated actors are seen as more likely than less motivated actors to obtain favorable evaluations. Perhaps the absence of any effect of motivation in the performance situation is due to the constraints of acting in a play, i.e., one is supposed to do and say only certain things. Varying one's behavior in a play is less acceptable than varying one's behavior, due to motivational concerns, in a contingent interaction, such as the friendship story.

TABLE 11

Subjects' Ratings of How Likely Actors  
Were to Do Things to Get the Classmates to Like Them  
as A Function of Situation and Motivation

| Situation   | Motivation |       |
|-------------|------------|-------|
|             | Low        | High  |
| Friendship  | 5.88ab     | 6.45a |
| Performance | 7.56b      | 7.16  |

Note. Means sharing a common subscript differ by  $p < .05$ .

Related to the actors' behavior in the situation, two questions were asked about the actors' successes or failures in the stories. The first of these asked subjects to rate (1) the degree to which the classmates would like Sandy's acting and (2) whether or not Dale would befriend the classmate. Ability and motivation main effects emerged,  $F$ 's (1,188) = 36.38 and 10.20, respectively,  $p < .002$ ). Inspection of the means shows that an able actor was more likely than an unable actor to achieve the interaction's goal ( $M$ 's = 7.41 and 5.56, respectively). Also a highly motivated actor was rated as more likely to succeed ( $M$  = 6.96) than a less motivated actor ( $M$  = 5.92).

The second performance question asked for a more global rating of the actor's likelihood of doing a good or bad job. A large ability main effect emerged,  $F (1,188) = 38.74$ ,  $p < .0001$ , showing as expected, more able actors rated as more likely to do a good job ( $M$ 's = 7.41 and 5.65, respectively). Also a motivation main effect,  $F (1,188) = 6.33$ ,  $p < .02$ , revealed highly motivated actors ( $M = 6.89$ ) as more likely to do a good job than less motivated actors ( $M = 6.08$ ).

The above motivation effect was qualified however, by a significant situation  $\times$  grade  $\times$  motivation interaction,  $F (2,188) = 3.67$ ,  $p < .03$ . A breakdown of this interaction revealed few significant simple effects, although the effect of motivation seemed to reside within the friendship rather than performance situation,  $F (1,188) = 5.42$ ,  $p < .05$  (see Table 12). Highly motivated actors in this situation were seen as doing a better job than less motivated actors. In addition, motivation produced this effect for seventh graders but not second or fourth graders (see Table 11). Perhaps the older children recognize in this contingent interaction the role effort can play in increasing performance outcomes. Second graders did rate highly motivated actors as more likely than less motivated actors to do a good job, but did not differentiate between the two types of situations as the older children did (simple main effect of motivation for second graders,  $F (1,188) = 14.15$ ,  $p < .05$ ;  $M$ 's for low/high motivation = 5.96 and 7.01).

TABLE 12

Subjects' Ratings of how Good a Job Actors Would do as a Function of Situation, Grade, and Motivation

| Friendship |        |       |
|------------|--------|-------|
| Motivation |        |       |
| Grade      | Low    | High  |
| Second     | 5.98   | 6.92  |
| Fourth     | 6.62   | 6.40  |
| Seventh    | 5.29ab | 6.93a |
| Overall    | 5.96c  | 6.75c |

| Performance |       |      |
|-------------|-------|------|
| Motivation  |       |      |
| Grade       | Low   | High |
| Second      | 5.94  | 7.10 |
| Fourth      | 6.45  | 6.92 |
| Seventh     | 6.57b | 6.34 |

Note. Means sharing a common subscript differ by  $p < .05$ .

Evaluation of Actors

A group of questions was asked which were designed to assess children's evaluations of the story characters along a number of dimensions. Subjects were asked how shy they thought the actors were, if the other story characters liked the actors, whether they themselves liked the actors, and the degree to which the actors were good or bad, happy or sad, and strong or weak. Each of these is dealt with below.

Shyness.

Because shyness has been related to social anxiety (see, e.g., Leary & Schlenker, 1981), subjects were asked to assess the degree to which the actor in each story was shy. A grade main effect was produced,  $F (2,188)$ ,  $p < .003$ , which showed older children (fourth and seventh graders) tended to rate the actors as more shy than younger children (second graders) ( $M$ 's for second, fourth, and seventh graders = 3.83, 5.14, and 5.25, with no significant intermean differences). Once again older children seem to be more aware of the relationship between evaluative social settings, such as those portrayed here, and apprehension by actors.

In addition to the grade main effect, an ability main effect emerged,  $F (1,188) = 4.51$ ,  $p < .04$ , which showed more able actors as less shy ( $M = 4.40$ ) than less able actors ( $M = 4.69$ ). It is perhaps the case that shyness is produced under different conditions than is social anxiety or perhaps

the transient nature of social anxiety is qualitatively different from the state of shyness. The presence of an ability effect here suggests that observers perceive shyness as a trait and therefore is affected by stable factors such as ability. In contrast, as has been seen, motivation effects were more pronounced on measures of anxiety, suggesting a recognition that anxiety is a state and affected by unstable factors such as motivation. If this interpretation is correct, it reflects a fairly sophisticated understanding of these concepts by all subjects.

#### Liking.

On the dimension of liking, subjects were asked to rate the degree to which (1) other story characters liked the actors and (2) subjects themselves liked the actors. In rating how much others liked Dale or Sandy, a grade main effect was produced,  $F(2,188) = 3.72$ ,  $p < .03$ . Older children thought the actor's classmate(s) liked the actor less than did younger children ( $M$ 's = 7.04, 6.60, and 6.13, respectively, for second, fourth, and seventh graders).

As expected, highly motivated or able actors were thought to be better liked by their classmates than were less motivated or able actors ( $F$ 's (1,188) = 5.61 and 20.50, for motivation and ability main effects, respectively; high/low motivation  $M$ 's = 7.04 and 6.34; high/low ability  $M$ 's = 7.43 and 6.03).

In rating how much subjects thought they would like Dale or Sandy, similar results were obtained. A grade main effect,  $F(2,188) = 9.22$ ,  $p < .001$ , showed seventh graders significantly less likely to like the actors than were fourth graders ( $M$ 's = 6.94, 7.56, and 6.06, for 2nd 4th, and 7 graders, respectively, 4th and 7th grade means differ at  $p < .05$ ).

As before, highly able or highly motivated actors were better liked by subjects than less able and motivated actors as revealed by ability and motivation main effects ( $F$ 's ( $1,188$ ) = 9.74 and 16.95, respectively,  $p$ 's  $< .003$ ; see Table 13). These main effects were qualified, however, by a significant motivation  $\times$  ability interaction,  $F(1,188) = 5.03$ ,  $p < .03$ , showing that the actor most liked by subjects was the one most able and most motivated, while the actor least liked was the least able and least motivated (see Table 13).

Good/Bad, Happy/Sad, Strong/Weak.

Three items were included which asked subjects to rate the actor in each story on the dimensions of good-bad, happy-sad, and strong-weak. They responded by selecting "9" if they thought the actor was on the extreme positive end of the continuum, by selecting "0" if they thought the actor was on the extreme negative end, and any number in between to represent degrees of positivity and negativity. Grade main effects emerged on subjects' ratings of the happy-sad

TABLE 13

Subjects' Ratings of How Much They Would Like the Actors  
as a Function of Motivation and Ability

| Ability | Motivation |        |         |
|---------|------------|--------|---------|
|         | Low        | High   | Overall |
| Low     | 5.59ac     | 7.54ad | 6.54f   |
| High    | 7.13bc     | 7.63bd | 7.40f   |
| Overall | 6.29e      | 7.58e  |         |

Note. Means sharing a common subscript differ by  $p < .05$ .

and good-bad dimensions ( $F$ 's (2,188) = 5.80 and 3.80, respectively,  $p$ 's < .03; see Table 14). The trend in the means shows that, generally speaking, older children rated the actor as less happy and a worse person than did younger children (see Table 14). The fact that seventh graders rated the actors as significantly sadder than second graders may reflect their increased awareness or the discomfort actors in social settings may sometimes suffer, themselves having gained a more sophisticated understanding of the role of the self in social interaction.

Along with the effects of grade, subjects more positively rated actors who were more able on the happiness, goodness,

TABLE 14

Subjects' Ratings of How Happy/Sad and Good/Bad Actors  
were as a Function of Grade

| Dimensions | Grade  |        |         |
|------------|--------|--------|---------|
|            | Second | Fourth | Seventh |
| Happy/Sad  | 7.06a  | 6.94   | 5.92a   |
| Good/Bad   | 7.78   | 7.75   | 7.03    |

Note. Within each dimension, means sharing common subscripts differ by  $p < .05$ .

as well as the strength dimensions ( $F$ 's for these dimensions  $(1,188) = 33.81, 18.77$ , and  $24.45$ , respectively,  $p$ 's  $< .0001$ ; see Table 15). In addition, on the happiness and goodness dimensions, subjects rated motivated actors as happier and better people than nonmotivated actors ( $F$ 's for these dimensions  $(1,188) = 13.06$  and  $25.43$ , respectively,  $p$ 's  $< .001$ ; high/low motivation  $M$ 's =  $6.21$  and  $7.31$ ). The motivation main effect for the goodness dimension was qualified, however, by a significant motivation  $\times$  ability interaction,  $F (1,188) = 6.55$ ,  $p < .02$ . An inspection of the means here shows that the most negative rating was given to actors who were both nonmotivated and of low ability in the situation. Interestingly, actors both high in ability

and motivation were no more positively evaluated than actors in either the high motivation or high ability conditions.

TABLE 15

Subjects's Ratings of How Happy/Sad, Good/Bad, and Strong/Weak Actors were as a Function of Ability

| Dimensions  | Ability |       |
|-------------|---------|-------|
|             | Low     | High  |
| Happy/Sad   | 6.03a   | 6.57a |
| Good/Bad    | 7.10b   | 8.16b |
| Strong/Weak | 5.64c   | 6.92c |

Note. Within each dimension, means sharing a common subscript differ by  $p < .05$ .

#### Subjects' self-ratings

A final item was asked to assess how subjects viewed themselves in terms of the kinds of interactions depicted in the stories, asking, for example following the performance vignette, "How good or bad are you at acting?" A main effect of motivation was produced,  $F (1,188) = 4.00$ ,  $p < .05$ , showing subjects rating themselves as generally better in both situations when they had just evaluated highly motivated actors (high/low motivation  $M$ 's = 4.64 and 4.30).

This could reflect subjects' understanding of the impact of motivation on one's performance outcomes, i.e., if you want to do something badly enough, you can probably do it.

In addition to the effect of motivation, a situation main effect emerged,  $F (1,188) = 31.92$ ,  $p < .0001$ , showing that subjects' self-ratings following the performance vignette were significantly less ( $M = 5.89$ ) than following the friendship vignette ( $M = 7.08$ ). This could be due to less familiarity and more apprehension with regard to acting in plays.

#### Relationships Among Measures

Correlations were obtained between measures of anxiety (nervousness, shyness, worry, uneasiness, and confidence) and behaviors presumed to be closely related to them (trouble communicating, acting clumsily, looking at classmate(s), looking away, fidgeting, and doing things to get a positive evaluation from others). As can be seen from Table 16, the presumed relationships seemed to be borne out. For example, actors rated as uneasy were also perceived as having trouble communicating, more likely to be clumsy and fidgeting. On analysis of these same measures within grades, however, the patterns of correlations become more puzzling. It was expected, for example, that older children would better relate anxiety and behavior given their broader script knowledge of these situations. As can be seen from the Table, however, this did not appear to be the case.

TABLE 16

Correlations Between Subjects' Ratings of Actors'  
Affective and Behavioral Anxiety Reactions

|                         |  | Ratings of Affective Reactions |        |         |       |       |
|-------------------------|--|--------------------------------|--------|---------|-------|-------|
| Behavioral<br>Reactions |  | Worried                        | Uneasy | Nervous | Shy   | Sure  |
| <b>Trouble</b>          |  |                                |        |         |       |       |
| Communicating           |  | .26*                           | .44*   | .38*    | .42*  | -.13  |
| 2nd Grade               |  | .18                            | .41*   | .31*    | .44*  | -.09  |
| 4th Grade               |  | .29*                           | .44*   | .31*    | .37*  | -.26* |
| 7th Grade               |  | .20                            | .37*   | .30*    | .21   | .03   |
| <b>Act Clumsily</b>     |  |                                |        |         |       |       |
| Act Clumsily            |  | .15*                           | .26*   | .16*    | .25*  | -.16* |
| 2nd Grade               |  | .08                            | .24*   | .14     | .24*  | -.16  |
| 4th Grade               |  | .07                            | .13    | .03     | .16   | -.12  |
| 7th Grade               |  | .35*                           | .51*   | .34*    | .37*  | -.27  |
| <b>Look at</b>          |  |                                |        |         |       |       |
| Classmate(s)            |  | -.09                           | -.07   | -.07    | -.16* | .38*  |
| 2nd Grade               |  | -.09                           | -.04   | -.01    | -.11  | .41*  |
| 4th Grade               |  | .03                            | -.02   | -.15    | -.17  | .45*  |
| 7th Grade               |  | -.08                           | .02    | -.17    | .02   | .15   |

|           |      |      |      |      |       |
|-----------|------|------|------|------|-------|
| Look Away | .21* | .31* | .26* | .33* | -.26* |
| 2nd Grade | .14  | .33* | .22  | .26* | -.31* |
| 4th Grade | .18  | .24  | .28  | .28* | -.25* |
| 7th Grade | .12  | .11  | .06  | .14  | -.17  |

|               |      |      |      |      |       |
|---------------|------|------|------|------|-------|
| Fidget/Squirm | .20* | .25* | .09  | .33* | -.21* |
| 2nd Grade     | .15  | .28* | .08  | .35* | -.06  |
| 4th Grade     | .16  | .08  | -.04 | .17  | -.34* |
| 7th Grade     | .07  | .30* | .08  | .29  | -.39* |

#### Procure Positive

|             |      |      |      |      |      |
|-------------|------|------|------|------|------|
| Evaluations | .28* | .22* | .19* | .02  | .19* |
| 2nd Grade   | .18  | .20  | .20* | .02  | .07  |
| 4th Grade   | .33* | .19  | -.03 | .04  | .33* |
| 7th Grade   | .54* | .40* | .53* | -.06 | .38* |

Note. Correlations followed by an asterisk are significant at  $p, < .05$ .

## CHAPTER IV DISCUSSION

### Overview

Overall, the results reported here indicate the importance of an actor's motivation to impress an audience and his or her ability to do so in affecting children's perceptions of social anxiety in others. It was found that actors who were shown wanting to impress an audience and doubting they would be able to do were perceived to feel anxious and behave in ways that reflect the anxiety. Conversely, actors low in motivation and high in ability were rated as least anxious. While this study was not a test of the model, since subjects' own anxiety was not manipulated, their recognition of the importance of motivation and ability in affecting another person's anxiety, along with the patterns of means, were consistent with it. However, there was only weak evidence to suggest that these factors interacted to affect observers judgments.

It was hoped that significant motivation X ability interactions would have emerged to support the multiplicative relationship suggested by the model. There are at least three possible reasons why these interactions

did not occur. First, the multiplicative relationship may have been attenuated by the restricted range of means obtained for ratings of motivation in the low and high motivation conditions (low/high  $M$ 's = 6.10 and 8.51). Because the zero-point was not approached in subjects' ratings of low motivation, the range of its effect on ability is lessened and would diminish the likelihood of finding a pronounced motivation  $\times$  ability interaction. Second, it is possible that observers of these situations may evaluate them differently than would an actual actor in the situation. The model makes no predictions about how observers will evaluate anxiety-provoking situations. Perhaps observers consider information about actor's motivation separately from information about an actor's outcome expectancies. Third, the model does not make propositions about children's understanding of social anxiety and the factors that influence it. It may, for example, not be until after the seventh grade that children multiplicatively combine the concepts of ability and motivation.

The results also provide evidence to support many of the predicted age differences in children's understanding of social anxiety. In general, older children, particularly seventh graders, made judgments about the story character's experiences that took into account an actor's motivation and ability moreso than did younger children.

In terms of understanding children's reactions to the performance and friendship stories used here, some evidence was obtained to show that they do result in different evaluations of an actor's anxiety experience. In general, actors in the performance story were seen as more concerned about being the object of others' evaluations than actors in the friendship situation.

Finally, the results indicated, as expected, that certain feelings associated with social anxiety (nervousness, worry, and so on) are directly related to certain behaviors designed to allow oneself to withdraw from the focus of another's evaluations. These relationships help delimit the nature of the experience. Expected grade differences in these relationships were not clear, however, and revealed puzzling patterns of correlations across the three grade groups.

In the following sections, the effects of an actor's motivation and ability, the effects of the type of situation, the effects of grade, and the relationship amongst measures of social anxiety will be discussed in detail.

Actors' Motivation and Ability

In evaluating social anxiety in others, it was expected that actors high in motivation and low in ability would be rated the most socially anxious while actors low in motivation and high in ability would be rated as least socially anxious. Support was found for the effects of high motivation and low ability in creating higher ratings of anxiety, although the effects were obtained when subjects were asked how worried and uneasy the actors felt, but when asked how nervous the actors were, only a motivation effect emerged and this only for seventh graders. In each of these cases the effects were in the predicted direction and consistent with the social anxiety model.

The differences in results across these measures could reflect children's differential understanding of the terms used (worried, uneasy, and nervous). On the other hand, these different effects could reflect different conceptual relationships between each word and social anxiety. For example, asking subjects how nervous they thought the actors were was originally conceived as the most central measure of the anxiety experience. The fact that only a motivation effect emerged and only for seventh grade subjects suggests perhaps that, at least for younger children, "nervousness" may be too broad and diverse a construct to be related in any systematic way to an actor's motivation. This interpretation is qualified, however, by the presence of

pervasive effects of motivation on the items asking subjects the reasons for the actors' nervousness. The questions tried to assess the degree to which either the intensity of an actor's motivation or his or her lack of ability were the primary reasons for the actor's nervousness. The results clearly showed that actors who were motivated to obtain their interaction goals were viewed as nervous because of both the fear of being unable to do a good job and the intensity of their motivation. This suggests that when the nervousness is tied to the specific variables affecting actors in these situations, motivation has the expected effect. Even this, however, does not address why no ability effects emerged on any of these items.

The item that comes closest to specifying the affective reactions of actors to social anxiety situations was perhaps the one asking subjects to rate how worried the actors were about being evaluated by others. This item is descriptive of the self-presentational aspects of these situations, and, being worried about how one's self is appearing to others may be more specific to social anxiety settings than perhaps are measures of nervousness and uneasiness. Both motivation and ability had the expected effects on this item, showing either motivated or less able actors rated as being most worried. Although these effects are consistent with the model, there was only a slight indication of the multiplicative effects of ability and motivation. This

indication was revealed in a significant situation X grade X motivation X ability interaction. A breakdown of this interaction revealed no significant effects that show an interaction of motivation and ability. At the same time an inspection of the means (see Table 3) suggests that within the performance situation and for second and fourth graders, the highest ratings of worry went to actors in the high motivation/low ability condition. Likewise, within the friendship situation for seventh graders, the actors judged most worried were again in the high motivation/low ability condition. Although this finding must be considered tentative, it is nonetheless suggestive of the multiplicative relationship of ability and motivation as suggested by the model.

In addition to these measures of actors' affective reactions to these situations, subjects were asked the degree to which they thought the actors were sure of what they were doing. To the extent that confidence about one's position in an interaction is antithetical to feelings of anxiety in the presence of others, this item provides a picture of the positive potential of these situations. In this case, actors who were either highly able or highly motivated were rated as very sure of themselves, and actors who were both motivated and able were rated as most confident (see Table 6).

Given the conceptual linkage between shyness and social anxiety (see e.g., Schlenker & Leary, 1982) it was expected that the antecedents to social anxiety would similarly affect subjects' ratings of how shy the actors were. When asked, however, only an ability effect was obtained showing, as expected, that more able actors were rated as being less shy. The fact that no motivation effects were obtained in interaction with ability suggests that shyness, as a trait, may be perceived to arise from different variables than a state of social anxiety. Specifically, as a trait, observers may evaluate actors on a shyness dimension based on a stable characteristic, such as ability. Observers may recognize the often transient and variable quality to an actor's motivation and see it as unrelated to how shy a particular actor is. The present results reveal that ratings of shyness were related in expected ways to observers' ratings of nervousness ( $r = .38, p < .01$ ), worry ( $r = .30, p < .01$ ), uneasiness ( $r = .46, p < .01$ ), and confidence ( $r = -.22, p < .01$ ). While this is so, it is likely that observers' ratings of shyness versus indicators of social anxiety reflect different antecedent factors.

It was predicted that an actor's motivation and ability would affect observers' judgments of his or her behavior in the same way they affected his or her feelings. In general, for the behaviors under test in the current study, ability produced effects in the predicted direction. For example,

actors high in ability were judged to have less trouble communicating, and be less likely to act clumsily, look away, fidget, or squirm. Conversely, actors high in ability were rated as more likely to look right at the classmate(s) and do things to get the classmate(s) to like them. In addition, Dale, in the friendship story, was judged more likely to talk, smile, and be pleasant to the classmate in the high versus low ability condition.

Motivation of the actor affected ratings of behaviors in predicted ways, but in only four cases, two of which were specific to the Dale story. In that condition, a highly motivated versus less motivated Dale was perceived more likely to talk, smile, and be pleasant to the classmate. In addition, following both stories, highly motivated versus less motivated actors were thought more likely to look right at the classmate(s) and more likely to do things to get the classmates' approval.

Why ability had such a consistent ubiquitous effect, while motivation's effects were rather scarce is not clear. It was expected, for example, that highly motivated and inept actors would be rated as having trouble communicating as well as being more likely to act clumsily and try and dissociate themselves from the interaction by looking away. Correlations between the anxiety measures and the behavior measures showed the expected relationship (see Table 16). For example, ratings of worry were directly related to

ratings of how likely the actor is to lock away, act clumsily, have trouble talking, fidget and squirm ( $r$ 's = .31, .26, .44, .25, respectively,  $p$ 's < .05). From this, it was reasonable to include these behaviors as measures in social anxiety situations.

Similarly to the behavioral ratings above, subjects' ratings of how successful the actors would be at obtaining audience approval and achieving their interaction goals were affected by motivation and ability; more motivated and able actors were seen as more likely to be successful. Unfortunately, motivation and ability did not interact in ways that would suggest, for example, that a motivated but less able actor's performance would suffer. From correlations between these items and affective ratings, it is not clear that these items dealt with the same expected deficits resulting from social anxiety. For example,  $r$ 's between ratings of how good a job the actor would do and how nervous, shy, worried, and uneasy the actor was were -.02, -.09, -.06, -.06, respectively,  $p$ 's > .05. Subjects seemed to rate the likelihood of successful performance without reference to how anxious the actor felt.

In evaluating the story characters, subjects rated them as better people and happier when the characters were either motivated or able and rated them the highest on these dimensions when they were both motivated and able. In addition, subjects rated able actors as stronger than unable

actors. These items were not significantly correlated with any of the anxiety measures, which is contrary to expectations. Perhaps, an actor who is highly motivated to impress an audience may appear to school-age children to be a better person than would the same actor to adults. On the other hand, an actor who is less motivated in these situations may appear to be a social isolate, a worse person than the same actor to adults. Adults might more highly value actors whose independence may be reflected in their low motivation, while seeing highly motivated actors as less happy, strong, and good as well as rating them higher on anxiety measures. As a result, it may not be so surprising that the expected correlations between happiness, goodness, and strength and anxiety measures did not emerge for school-age subjects. These dimensions were, however, significantly correlated with behavioral ratings, for example,  $r$ 's between the likelihood of acting clumsily and looking away and ratings of how good, strong, and happy a person actors were all negative and significant.

In judging the degree to which subjects themselves would like the actors, high ratings were given to either highly motivated or able actors and the highest ratings were given to both motivated and able actors (see Table 12). Interestingly liking the actor was not related to any of the measures of anxiety, but was related negatively to measures of anxious behavior (clumsiness, etc.) and positively to

chances for successful outcomes. As a result, this item does not illuminate children's reactions to actors who feel anxious, but does reveal their negative reactions to actors who behave inappropriately in social settings, pointing to the evaluative nature of all social interactions.

#### Contingent versus Noncontingent Interactions

It was expected that highly motivated actors with low outcome expectancies would, in the noncontingent situation, be rated more anxious than other actors. However, on measures of anxiety no such situation X motivation X ability interaction emerged. Ratings of anxiety were affected somewhat by the type of situation depicted. For example, subjects rated actors in the performance/noncontingent situation as more nervous ( $p < .06$ ), worried ( $p < .05$ ), and uneasy ( $p < .05$ ) than in the friendship/contingent situation. It was speculated that the performance situation, involving a larger audience, might produce more concerns over self-presentation and increase ratings of anxiety.

It is not totally clear, however, how subjects viewed actors in each of these situations. For example, actors in the friendship rather than performance situation were rated more likely to have trouble communicating. Given the relationship between anxiety and problems in communication (Daly, 1978) it was speculated that greater problems would

have been encountered in the performance situation. It could be, however, that subjects recognize that acting in plays requires learning what to say, i. e., subjects may have assumed that actors in these situations would have less trouble communicating because of the scripting of behaviors in these situations. This may have also caused subjects to rate actors in the performance situation as more confident or sure than actors in the friendship situation. Because of the greater behavioral leeway in the friendship condition, subjects may have seen spontaneous communication as a problem for actors in this setting. It was found, in addition, that motivation increased the likelihood actors would do things to try and get the classmates to like them in the friendship but not the performance situation (see Table 11), showing children's recognition of the variable nature of contingent interactions.

The situations had other unpredicted but interesting effects. For example, given high ability, actors in the performance situation were seen as wanting to be successful in the interaction. This increased motivation may have influenced the ratings of anxiety of actors in the performance condition. Also, actors in the performance condition were rated as better people than actors in the friendship condition. In all, there was sufficient evidence to justify distinguishing between these two kinds of situations given their differential effects on subjects judgments as discussed above.

The Effects of Grade

It was expected that older children (4th and 7th graders) would show a more sophisticated understanding of the antecedent factors affecting social anxiety than would younger children (2nd graders). In effect, it was predicted that older children would make judgments of actors more in line with the predictions of the social anxiety model. Moderate support was obtained for older children's more sophisticated appreciation of these situations, but their judgments did not completely conform to the predictions.

In judging how nervous, worried, and uneasy the story characters felt, significant grade X motivation interactions emerged that support the idea that older rather than younger children more readily recognize the influence of motivation on anxiety (see Tables 2, 4, and 5). For example, motivated actors were rated as more worried about being evaluated in ratings by fourth and seventh graders but not by second graders (see Table 4). Furthermore, in the motivated conditions, fourth and seventh graders rated actors as more worried than did second graders. Although these findings are consistent with the model, they are not as extensive as had been hoped. (It was expected that older children would more readily recognize the interactive effects of motivation and ability in making their judgments. As noted earlier, however, there are reasons why the multiplicative relationship was not obtained.) These findings do show

rather consistently that older children at least recognize the effect of heightened motivation on anxiety.

It was expected that, after judging an actor as nervous, older children would cite the intensity of the actor's motivation as the major reason for the actor's nervousness. Younger children, on the other hand, were expected to cite lack of ability as the major reason. This was expected based on the increased preference with age for effort information over ability information in explaining behaviors (Kun, Parsons, & Ruble, 1974; Weiner & Peter, 1973). A grade effect was produced only in response to the degree to which outcome expectancies based on past performance were cited as the major reason for an actor's nervousness. Also, the means suggest that older children are more likely to cite this as the reason than are younger children. Although this finding is at odds with the prediction, it at least suggests that older children more readily recognize that fear of evaluation can produce feelings of anxiety.

In line with predictions, it was found that overall, older children rated actors as more worried and uneasy than did younger children. Perhaps this reflects an increasing awareness of the pressures of being evaluated in social contexts and suggests that older children more readily recognize the position of self as the object of others' attentions.

Children's ratings of how likely an actor was to obtain a successful outcome were predicted to vary with grade. Given high motivation and low ability, older children, presumably recognizing this as an anxiety-producing situation, were to have predicted less chance for success for these actors. Younger children, it was thought, would predict more equal likelihoods of success across all motivation and ability conditions. When asked to rate the actors likelihood of success in the specific story settings, no grade effects were obtained. However, when asked whether an actor would do a good or bad job, some support was found for differentiation by older children between anxiety and nonanxiety situations but the effect was in the opposite direction. Rather than predicting that highly motivated actors, being nervous, would do worse, older children predicted these actors in the friendship situation would do better (see Table 12). Perhaps older children saw the contingent nature of the friendship story as being more variable and more easily affected by transient motivational states. The only support generated for the original prediction was in a simple main effect of grade, given high motivation, that showed older children rating motivated actors as less likely to do a good job. As expected, this provides some support for the notion that older versus younger children would be more pessimistic about an insecure actor's performance.

This relative pessimism in older children's reactions to actors in these situations seemed to increase ratings on measures of actors' affect and chances for success, but also affected ratings of the behaviors the actors might perform. For example, older children thought the actors more likely than did younger children to have trouble communicating, to act clumsily, to avoid eye contact, fidget and squirm, and less likely to look right at the classmate(s) (see Table 9). This pessimism, although not consistently tied to social anxiety conditions, suggests that older children are more aware of and expect the kinds of negative behaviors these situations imply. Presumably, older children, having developed a stronger, more complex view of self, recognize the hazards of social interaction more readily than do younger children in whom the self is less well-articulated.

In addition to rating the actors' behaviors more negatively, older children rated actors more negatively than did younger children across a number of measures. For example, older children judged the actors to be worse people, sadder people, more shy, and less likeable people than did younger children. People who do not want to make friends may particularly appear more negatively to older children who are perhaps more aware of the interdependence of social life and the value of friends.

Older children were predicted to demonstrate a greater ability to understand the recursive nature of thinking. It

was thought, for example, that they would recognize that an actor's ability level would influence his or her self-perceptions in ways that older children would more readily understand. As has been shown, older children seem to be better able to take the role of actors and predict affective and behavioral responses more in line with the model. It is not clear, however, from the measures used whether, say, older children's ratings of motivated actors as more nervous implies greater role-taking ability or reflects different age children's preference for one versus another kind of information. Likewise, in rating how worried actors are about what the audience in each story is thinking, older children's ratings of greater worry for motivated actors most probably reflects a more sophisticated role-taking ability. This, in turn, probably implies greater ease in understanding how people can and often do think about the thoughts of others. This relationship between role-taking ability and understanding the recursive nature of thinking is consistent with research suggesting such a relationship (Miller, Kessel, & Flavell, 1970).

#### Measures of Affect and Behavior and their Relationship

It was expected that older children would demonstrate a more consistent and broader knowledge of the relationship between affective and behavioral responses to situations such as the ones presented here. For older children, high

positive correlations were expected between ratings of an actor's nervousness, shyness, worry, and uneasiness and ratings of clumsiness, looking away, trouble communicating, fidgeting and squirming, and trying to do things to obtain a positive evaluation. In addition, for older children, significant negative correlations were expected between ratings of anxiety and how likely the actor was to look right at the classmate(s). As noted in Chapter III, Table 16, overall correlations for all grades showed, for the most part consistent and expected relationships. When broken down by grade, however, these relationships become less clear. Why, for example, is the likelihood of an actor looking away or right at a classmate not significantly related to any of the measures of social anxiety for seventh graders? Presumably, they are the group with the most social experience and would therefore be more likely to recognize these elements of social anxiety. Perhaps the lack of a consistent pattern of correlations for older children between behaviors and anxiety may reflect their awareness of the possible discrepancy between what one feels and what one does. For example, older children may recognize that actors can feel nervous, yet avoid doing things to reveal their unsettled emotions and therefore maintain positive audience regard. It was shown, for example, that actors, regardless of their affective reactions to the situation were rated more positively if

they avoided being clumsy, looking away, and the other behaviors designed to dissociate oneself from an anxiety situation. Older children may realize that, just because one feels unsettled on the inside, one can appear calm or settled on the outside to avoid negative evaluations. This interpretation is in line with the findings of Selman (1980), showing a developmental progression in children's understanding of the differences between internal and external aspects of self. It also suggests that older children are more sophisticated in understanding self-presentation in others in these kinds of situations.

#### Summary

In all, support was obtained for the importance of the effects of motivation and ability on ratings of anxiety in others. An actor who is unable or highly motivated to impress an audience is perceived to suffer, while an actor able or less motivated is perceived not to suffer. While the model predicts a multiplicative relationship between these factors, the current study found little support for this relationship. This may be because (1) responses to the motivation manipulation failed to produce extreme ratings in the low motivation condition, and/or (2) observers' ratings of others in anxiety-provoking situations are not included in the model, and observers may evaluate these situations differently than would perhaps actors themselves. In either

case, the effects produced on observers' judgments were consistent with the factors suggested by the model.

Evidence was obtained that supports conceptually distinguishing between the two types of interactions as were used in the current study. Anxiety in contingent and noncontingent interactions seems to be affected by both motivation and ability in ways consistent with the model. At the same time each had special effects of its own. For example, generally higher anxiety ratings were made of actors in the noncontingent versus contingent interaction settings. Evidently, the presence of greater numbers of audience members and the novelty of such situations increases actors' concerns with self-presentation and heightens their affective reactions in these settings.

Across both situations a great deal of correlational evidence was obtained to suggest strong and expected relationships between measures of actors' affective and behavioral responses to the situations. For example, actors who were viewed as more worried were also seen as more likely to look away, fidget or squirm, and so on. These findings help delimit the behavioral and emotional parameters of the experience of social anxiety.

Older children (4th and 7th graders) showed a more sophisticated understanding of the effects of motivation and ability on social anxiety. Their sophistication was revealed in findings such as rating actors as more worried

in the high rather than low motivation conditions. Younger children did not make such a differentiation based on motivation or ability. The findings that suggest a developmental progression in understanding social anxiety in others can be linked to increased role-taking ability and greater understanding in older children of the role of self in social interaction. Even so, the developmental picture was not as clear as was hoped. For example, older children did not show an obvious superiority over younger children in relating in consistent ways affective and behavioral measures of anxiety. Because it is not likely that older children have less social knowledge than younger children, it is presumed that older children, more skilled at social behavior, really do not see a necessary connection between feeling anxious and behaving in ways to reveal one's anxiety. As mentioned, this may reflect their increased understanding of the potential divergence between what one feels and how one behaves and actually a more sophisticated understanding of self-presentation in these situations. Future research will be done to assess more directly this explanation.

APPENDIX A  
PROTOCOLS AND VIGNETTES

PROTOCOL

**Experimenter** \_\_\_\_\_

**Subject:**

Male      Female      Grade      Age      School      Date

**Condition:**

Ability (circle one) HIGH LOW

Dale Vignette

Introduction: Dale is a student in the \_\_\_ grade. It is after school and Dale is waiting for the bus. Dale sees a classmate who is also waiting. Dale...

High Motivation/High Ability: wants very much to be friends with this classmate. He/she likes the classmate and wants the classmate to like him/her. Dale has been able to make friends easily in the past, and thinks he/she could become friends with the classmate.

High Motivation/Low Ability: wants very much to be friends with this classmate. He/she likes the classmate, and wants the classmate to like him/her. However, Dale has had difficulty making friends in the past, and does not think he/she could become friends with the classmate, even though he/she wants to.

Low Motivation/High Ability: does not really care whether or not he/she becomes friends with this classmate. He/she does not really like or dislike the classmate, and does not care whether the classmate likes or dislikes him/her. Dale has been able to make friends easily in the past, and thinks he/she could become friends with the classmate if he/she wanted to.

Low Motivation/Low Ability: does not really care whether or not he/she becomes friends with this classmate. He/she does not really like or dislike the classmate, and does not care whether the classmate likes or dislikes him/her. Dale has had difficulty making friends in the past, and does not think he/she could become friends with the classmate even if he/she wanted to.

Prompt: The classmate looks at Dale and says, "Hello."

DALE QUESTIONNAIRE:

- \_\_\_ 1. Does Dale want the classmate to like him/her, and if so, how much does Dale want the classmate to like him/her?
- \_\_\_ 2. Does Dale want to be friends with the classmate, and if so, how much does Dale want to be friends with the classmate?
- \_\_\_ 3. Does Dale think he/she will become friends with the classmate, and if so, how much does Dale think he/she will become friends?
- \_\_\_ 4. Does Dale think he/she is good at making friends, not good at making friends, or somewhere in between?

\_\_\_ 5. Does Dale feel nervous, and if so, how nervous does Dale feel?

(TO BE ASKED IF SUBJECT REPORTS THAT DALE FEELS NERVOUS)

\_\_\_ 5a. Does Dale feel nervous because he/she is afraid of being unable to make friends with the classmate, and if so, how big a reason is this for Dale feeling nervous?

\_\_\_ 5b. Does Dale feel nervous because he/she really wants to be friends with the classmate, and if so, how big a reason is this for Dale feel nervous?

(BACK TO ASKING ALL SUBJECTS)

\_\_\_ 6. Is Dale a shy person, and if so, how shy is he/she?

\_\_\_ 7. Is Dale worried about what the classmate is thinking about him/her and if so, how worried is he/she?

\_\_\_ 8. Does Dale feel uneasy, and if so, how uneasy does he/she feel?

\_\_\_ 9. Does Dale feel sure about what he/she is doing, and if so, how sure is he/she?

\_\_\_ 10. Do you think the classmate likes Dale, and if so, how much do you think the classmate likes Dale?

\_\_\_ 11. Do you think Dale will become friends with the other classmate, and if so, how likely is it that they will become friends?

\_\_\_ 12. Do you think Dale will talk to the classmate, and if so, how much will Dale talk?

\_\_\_ 13. Do you think Dale will have trouble thinking of things to say to the classmate, and if so, how much trouble do you think he/she will have?

\_\_\_ 14. Do you think Dale will smile and be pleasant (or nice) to the classmate, and if so, how much do you think he/she will do this?

\_\_\_ 15. Do you think Dale will act awkwardly, clumsily, or strangely, and if so, how much will he/she act like this?

\_\_\_ 16. Do you think Dale will look right at the classmate, and if so, how much do you think he/she will look right at the classmate?

\_\_\_ 17. Do you think Dale will try to look away from the

classmate, and if so, how much do you think he/she will try to look away?

- \_\_\_ 18. Do you think Dale will fidget or squirm and if so, how much will he/she fidget or squirm?
- \_\_\_ 19. Do you think Dale will do a good job or a bad job in trying to be friends with the classmate or somewhere in between?
- \_\_\_ 20. Do you think Dale will try to do things to get the classmate to like him/her, and if so, how much will he/she do these things?
- \_\_\_ 21. Do you think Dale is a good person or a bad person?
- \_\_\_ 22. Do you think Dale is a happy person or a sad person?
- \_\_\_ 23. Do you think Dale is a strong person or a weak person?
- \_\_\_ 24. Do you think you would like Dale, and if so, how much do you think you would like him/her?
- \_\_\_ 25. How good or bad are you at making friends?

Sandy Vignette

Introduction: Sandy is a student in the \_\_\_\_ grade. Today in school, Sandy is supposed to be a pilgrim in the school play and his/her classmates will be watching the play. Sandy...

High Motivation/ High Ability: very much wants his/her classmates to like his/her acting and wants them to think he/she did a good job. Sandy has always been a very good actor, and thinks his/her classmates will like his/her acting and think he/she did a good job.

High Motivation/Low Ability: very much wants his/her classmates to like his/her acting and wants them to think he/she did a good job. Sandy has never been a good actor, and does not think his/her classmates will like his/her acting or think he/she did a good job.

Low Motivation/High Ability: does not really care whether or not his/her classmates like his/her acting or think he/she did a good job or a bad job. Sandy has always been a very good actor, and thinks his/her classmates will like his/her acting and thinks he/she did a good job.

Low Motivation/Low Ability: does not really care whether or not his/her classmates like his/her acting or think he/she did a good job or a bad job. Sandy has never been a good actor, and does not think his/her classmates will like his/her acting or think he/she did a good job.

Prompt: Everyone in the audience (all Sandy's classmates) are waiting for the play to begin.

## SANDY QUESTIONNAIRE

- \_\_\_ 1. Does Sandy want the classmates to like him/her, and if so, how much does Sandy want the classmates to like him/her?
- \_\_\_ 2. Does Sandy want the classmates to like his/her acting and if so, how much does Sandy want them to like his/her acting?
- \_\_\_ 3. Does Sandy think he/she will get the classmates to like his/her acting, and if so, how much does Sandy think he/she will get them to like him/her?
- \_\_\_ 4. Does Sandy think he/she is a very good actor or a very bad actor or somewhere in between?
- \_\_\_ 5. Does Sandy feel nervous, and if so, how nervous does Sandy feel?

(TO BE ASKED IF SUBJECT REPORTS THAT SANDY FEELS NERVOUS)

- \_\_\_ 5a. Does Sandy feel nervous because he/she is afraid of doing a bad job acting, and if so, how big a reason is this for Sandy feeling nervous?
- \_\_\_ 5b. Does Sandy feel nervous because he/she really wants his/her classmates to like his/her acting, and if so, how big a reason is this for Sandy feeling nervous?

(BACK TO ASKING ALL SUBJECTS)

- \_\_\_ 6. Is Sandy a shy person, and if so, how shy is he/she?
- \_\_\_ 7. Is Sandy worried about what the classmates are thinking about him/her, and if so, how worried is he/she?
- \_\_\_ 8. Does Sandy feel uneasy, and if so, how uneasy does he/she feel?
- \_\_\_ 9. Does Sandy feel sure about what he/she is doing, and if so, how sure is he/she?
- \_\_\_ 10. Do you think the classmates like Sandy, and if so, how much do you think the classmates like Sandy?
- \_\_\_ 11. Do you think the classmates will like Sandy's acting, and if so, how much do you think they will like his/her acting?
- \_\_\_ 12. Do you think Sandy will have trouble remembering what he/she is supposed to say in the play, and if so, how much trouble do you think Sandy will have?
- \_\_\_ 13. Do you think Sandy will act awkwardly, clumsily, or strangely, and if so, how much will he/she act like this?
- \_\_\_ 14. Do you think Sandy will look right at the classmates, and if so, how much do you think he/she will look right at them?
- \_\_\_ 15. Do you think Sandy will try to look away from the classmates, and if so, how much do you think he/she will try to look away?
- \_\_\_ 16. Do you think Sandy will fidget or squirm and if so, how much will he/she fidget or squirm?
- \_\_\_ 17. Do you think Sandy will do a good job or a bad job acting or somewhere in between?
- \_\_\_ 18. Do you think Sandy will try to do things to get the

classmates to like him/her and his/her acting, and if so, how much will he/she do these things?

- \_\_\_ 19. Do you think Sandy is a good person or a bad person?
- \_\_\_ 20. Do you think Sandy is a happy person or a sad person?
- \_\_\_ 21. Do you think Sandy is a strong person or a weak person?
- \_\_\_ 22. Do you think you would like Sandy, and if so, how much do you think you would like him/her?
- \_\_\_ 23. How good or bad are you at acting?

APPENDIX B  
NUMBER OF SUBJECTS PER CELL OF THE DESIGN

**Low Motivation**

| Ability | Grade  |        |         |
|---------|--------|--------|---------|
|         | Second | Fourth | Seventh |
| Low     | 23     | 19     | 12      |
| High    | 21     | 14     | 9       |

**High Motivation**

| Ability | Grade  |        |         |
|---------|--------|--------|---------|
|         | Second | Fourth | Seventh |
| Low     | 25     | 15     | 11      |
| High    | 22     | 17     | 12      |

APPENDIX C  
NUMBER OF SUBJECTS PER CELL ANSWERING THAT  
ACTORS

WERE NERVOUS BY GRADE, MOTIVATION, AND ABILITY

Low Motivation

| Ability | Second | Fourth | Seventh |
|---------|--------|--------|---------|
| Low     | 20     | 14     | 8       |
| High    | 12     | 11     | 8       |

High Motivation

| Ability | Second | Fourth | Seventh |
|---------|--------|--------|---------|
| Low     | 17     | 9      | 10      |
| High    | 9      | 10     | 12      |

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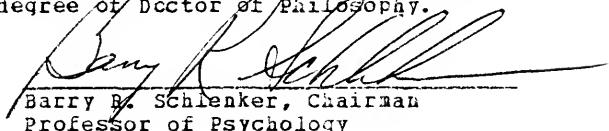
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#### BIOGRAPHICAL SKETCH

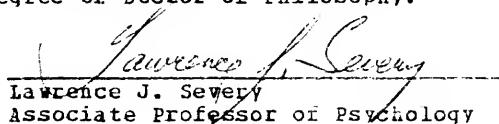
Bruce Warren Darby was born in Columbia, Missouri, on May 12, 1952. After eleven years in Missouri, Bruce moved with his parents and two older brothers to Yazoo City, Mississippi, where he finished high school in 1970. Bruce then attended Millsaps College in Jackson, where he graduated with high honors in political science in 1974. For two years, he worked for the Governor of Mississippi on the Governor's Committee for Children and Youth, heading the Student Intern Program and as acting director of the Mississippi Merit System Council. In 1976, Bruce returned to school at the University of Florida and received a Master of Arts degree in political science in 1977, a Master of Arts in psychology in 1980, and a Doctor of Philosophy in psychology in 1983. Bruce is currently an Assistant Professor of Psychology at Denison University.

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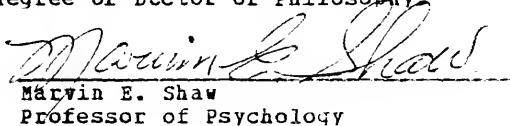
Barry B. Schlenker, Chairman  
Professor of Psychology

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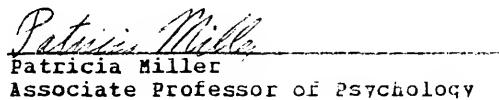
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Associate Professor of Psychology

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Professor of Psychology

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Patricia Miller  
Associate Professor of Psychology

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This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Liberal Arts and Sciences and to the Graduate School, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August 1983

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